

APC anti-mouse IFN- γ Antibody

Catalog# / Size	505809 / 25 μ g 505810 / 100 μ g
Clone	XMG1.2
Regulatory Status	RUO
Other Names	Interferon- γ , Immune interferon, Type II interferon, T cell interferon, Macrophage-activating factor (MAF)
Isotype	Rat IgG1, κ
Description	IFN- γ is a potent multifunctional cytokine which is secreted primarily by activated NK cells and T cells. Originally characterized based on anti-viral activities, IFN- γ also exerts anti-proliferative, immunoregulatory, and proinflammatory activities. IFN- γ can upregulate MHC class I and II antigen expression by antigen-presenting cells.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	<i>E. coli</i> -expressed, recombinant mouse IFN- γ
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography, and conjugated with APC under optimal conditions.
Concentration	0.2 mg/ml
Storage & Handling	The IFN- γ antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤ 1.0 μ g per million cells in 100 μ l volume. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Red Laser (633 nm)
Application Notes	<p>ELISA^{1-4,11,14} or ELISPOT⁵ Detection: The biotinylated XMG1.2 antibody is useful as a detection antibody for a sandwich ELISA or ELISPOT assay, when used in conjunction with purified R4-6A2 antibody (Cat. No. 505702/505706) as the capture antibody and recombinant mouse IFN-γ (Cat. No. 575309) as the standard.</p> <p>ELISA or ELISPOT Capture: The purified XMG1.2 antibody is useful as a capture antibody for a sandwich ELISA or ELISPOT assay, when used in conjunction with biotinylated R4-6A2 antibody (Cat. No. 505704) as the detection antibody and recombinant mouse IFN-γ (Cat. No. 575309) as the standard. The LEAF™ purified antibody is suggested for ELISPOT capture (Cat. No. 505812).</p> <p>Flow Cytometry^{7,8,12,13,16}: The fluorochrome-labeled XMG1.2 antibody is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify IFN-γ-producing cells within mixed cell populations.</p> <p>Neutralization^{1-3,9,10}: The XMG1.2 antibody can neutralize the bioactivity of natural or recombinant IFN-γ. The LEAF™ purified antibody (Endotoxin <0.1 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for neutralization of mouse IFN-γ bioactivity <i>in vivo</i> and <i>in vitro</i> (Cat. No. 505812). For <i>in vivo</i> studies or highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 505834) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/μg).</p> <p>Additional reported applications (for the relevant formats) include: Western blotting, immunohistochemical staining of frozen tissue sections^{6,22,23}, and immunocytochemistry.</p> <p>Note: For testing mouse IFN-γ in serum, plasma or supernatant, BioLegend's ELISA Max™ Sets</p>

(Cat. No. 430801 to 430806) are specially developed and recommended.

Application References

(PubMed link indicates
BioLegend citation)

1. Abrams J, *et al.* 1992. *Immunol. Rev.* 127:5. (ELISA, Neut)
2. Sander B, *et al.* 1993. *J. Immunol. Meth.* 166:201. (ELISA, Neut)
3. Abrams J, *et al.* 1995. *Curr. Prot. Immunol.* John Wiley and Sons, New York. Unit 6.20. (ELISA, Neut)
4. Yang X, *et al.* 1993. *J. Immunoassay* 14:129. (ELISA)
5. Klinman D, *et al.* 1994. *Curr. Prot. Immunol.* John Wiley and Sons, New York. Unit 6.19. (ELISPOT)
6. Sander B, *et al.* 1991. *Immunol. Rev.* 119:65. (IHC)
7. Ferrick D, *et al.* 1995. *Nature* 373:255. (FC)
8. Ko SY, *et al.* 2005. *J. Immunol.* 175:3309. (FC) [PubMed](#)
9. Peterson KE, *et al.* 2000. *J. Virol.* 74:5363. (Neut)
10. DeKrey GK, *et al.* 1998. *Infect. Immun.* 66:827. (Neut)
11. Dzhagalov I, *et al.* 2007. *J. Immunol.* 178:2113. (ELISA)
12. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366. (FC)
13. Lee JW, *et al.* 2006. *Nature Immunol.* 8:181. (FC) [PubMed](#)
14. Xu G, *et al.* 2007. *J. Immunol.* 179:5358. (ELISA) [PubMed](#)
15. Montfort M, *et al.* 2004. *J. Immunol.* 173:4084. [PubMed](#)
16. Haring JS, *et al.* 2008. *J. Immunol.* 180:2855. (FC) [PubMed](#)
17. Jordan JM, *et al.* 2008. *Infect Immun.* 76:3717. [PubMed](#)
18. Tonkin DR, *et al.* 2008. *J. Immunol.* 181:4516. [PubMed](#)
19. Charles N, *et al.* 2010. *Nat. Med.* 16:701. (FC) [PubMed](#)
20. Cui Y, *et al.* 2009. *Invest. Ophth. Vis. Sci.* 50:5811. (FC) [PubMed](#)
21. Mykkanen OT, *et al.* 2014. *PLoS One.* 9:114790. [PubMed](#)
22. Yokogawa M, *et al.* 2013. *Mol. Carcinog.* 52:760. (IHC)
23. Mottram PL, *et al.* 1998. *J Immunol.* 161:602. (IHC)

Product Citations

1. Quispe Calla N, *et al.* 2016. *Sci Rep.* 6:37723. [PubMed](#)
2. Harsha Krovci S, *et al.* 2020. *Nat Commun.* 4.790277778. [PubMed](#)
3. Cignarella F *et al.* 2018. *Cell metabolism.* 27(6):1222-1235. [PubMed](#)
4. Logan K Smith *et al.* 2018. *Immunity.* 48(2):299-312. [PubMed](#)
5. Chinta KC *et al.* 2018. *Cell reports.* 25(7):1938-1952. [PubMed](#)
6. Komuczki J, *et al.* 2019. *Immunity.* 50:1289. [PubMed](#)
7. Zheng X, *et al.* 2019. *PLoS Pathog.* 15:e1008036. [PubMed](#)
8. Kisielow J, *et al.* 2019. *Nat Immunol.* 1.286111111. [PubMed](#)
9. Hudson WH, *et al.* 2020. *Immunity.* 51(6):1043-1058.e4.. [PubMed](#)
10. Dong MB, *et al.* 2020. *Cell.* 178(5):1189-1204.e23.. [PubMed](#)
11. Oliver AJ, *et al.* 2020. *Oncoimmunology.* 9:1802979. [PubMed](#)
12. Zhou R, *et al.* 2022. *EBioMedicine.* 75:103762. [PubMed](#)
13. Zheng J, *et al.* 2022. *Front Pharmacol.* 13:866228. [PubMed](#)
14. Bergot AS, *et al.* 2020. *J Immunol.* 204:1787. [PubMed](#)
15. Du C, *et al.* 2016. *Nat Commun.* 7: 11120. [PubMed](#)
16. Cella M, *et al.* 2019. *Nat Immunol.* 1.513888889. [PubMed](#)
17. Xie A *et al.* 2017. *Endocrinology.* 158(10):3140-3151. [PubMed](#)
18. Vacca M, *et al.* 2017. *Front Immunol.* . 10.3389/fimmu.2017.01462. [PubMed](#)
19. Yang N, *et al.* 2022. *NPJ Vaccines.* 7:120. [PubMed](#)
20. Li X, *et al.* 2022. *Nat Commun.* 13:2794. [PubMed](#)
21. Suresh R, *et al.* 2020. *J Immunother Cancer.* 8:. [PubMed](#)
22. Hamilton JAG, *et al.* 2021. *Aging Cell.* 20:e13309. [PubMed](#)
23. Muthumani K, *et al.* 2015. *Sci Transl Med.* 7: 301ra132. [PubMed](#)
24. Laroche-Lefebvre C, *et al.* 2016. *J Immunol.* 197: 3618 - 3627. [PubMed](#)
25. Sanchez-Felipe L, *et al.* 2021. *Nature.* 590:320. [PubMed](#)
26. Yang C, *et al.* 2018. *J Immunol.* 200:1316. [PubMed](#)
27. Saleh MM, *et al.* 2019. *Cell Host Microbe.* 25:756. [PubMed](#)
28. Angiari S, *et al.* 2020. *Cell Metab.* 31:391. [PubMed](#)
29. Seo YB, *et al.* 2021. *Vaccines (Basel).* 9: . [PubMed](#)
30. Turner JA, *et al.* 2020. *Immunity.* 53:1202. [PubMed](#)
31. Wabitsch S, *et al.* 2021. *Cell Mol Gastroenterol Hepatol.* 12:1166. [PubMed](#)
32. Duan Q, *et al.* 2021. *Front Cell Dev Biol.* 9:761193. [PubMed](#)
33. Devalaraja S, *et al.* 2020. *Cell.* 1098:180. [PubMed](#)
34. Haque M, *et al.* 2021. *STAR Protoc.* 2:100264. [PubMed](#)
35. Zhao Y, *et al.* 2015. *PLoS One.* 10: 0134797. [PubMed](#)
36. Burrack AL, *et al.* 2019. *Cell Rep.* 28:2140. [PubMed](#)
37. Li Y, *et al.* 2020. *Cell Rep.* 30:1753. [PubMed](#)
38. Ron-Harel N, *et al.* 2019. *Cell Rep.* 28:3011. [PubMed](#)
39. Chow MT *et al.* 2019. *Immunity.* 50(6):1498-1512. [PubMed](#)
40. Lu J, *et al.* 2018. *ACS Nano.* 12:11041. [PubMed](#)
41. Diao L, *et al.* 2022. *iScience.* 25:105511. [PubMed](#)
42. Guo Q, *et al.* 2021. *Front Cardiovasc Med.* 8:633212. [PubMed](#)
43. Gu M, *et al.* 2021. *Nat Immunol.* 22:193. [PubMed](#)
44. Yang X, *et al.* 2021. *Front Pharmacol.* 12:771046. [PubMed](#)
45. Rao E, *et al.* 2021. *Sci Immunol.* 6:. [PubMed](#)
46. Klarquist J, *et al.* 2021. *Cell Rep.* 36:109591. [PubMed](#)
47. Fitzgerald AA, *et al.* 2021. *J Immunother Cancer.* 9:. [PubMed](#)
48. Wabitsch S, *et al.* 2021. *STAR Protoc.* 2:100517. [PubMed](#)
49. Oda SK, *et al.* 2020. *J Exp Med.* 217: . [PubMed](#)
50. Nagaoka M, *et al.* 2014. *J Immunol.* 193:2812. [PubMed](#)

51. Okuniewska M, *et al.* 2021. Cell Reports. 36(2):109368. [PubMed](#)
52. Wang X, *et al.* 2021. Front Cell Dev Biol. 632805:9. [PubMed](#)
53. Ogawa C *et al.* 2018. Cell reports. 25(1):19-28 . [PubMed](#)
54. Qi X, *et al.* 2019. Nat Commun. 10:2141. [PubMed](#)
55. Matsuoka S, *et al.* 2019. Haematologica. 105:226. [PubMed](#)
56. Saini V, *et al.* 2020. Nat Commun. 0.845138889. [PubMed](#)
57. Chaurasiya S, *et al.* 2020. Oncoimmunology. 9:1729300. [PubMed](#)
58. Pham THM, *et al.* 2020. Cell Host & Microbe. 27(1):54-67.e5.. [PubMed](#)
59. Konrath KM, *et al.* 2022. Cell Rep. 38:110318. [PubMed](#)
60. Mitchell JE, *et al.* 2021. Cell Reports. 35(2):108966. [PubMed](#)
61. Han C, *et al.* 2021. Cell Reports. 34(6):108706. [PubMed](#)
62. Perner C, *et al.* 2020. Immunity. 53(5):1063-1077.e7. [PubMed](#)
63. Cabrera-Mora M, *et al.* 2015. Infect Immun . 83: 3749-3761. [PubMed](#)
64. DeBerge M, *et al.* 2013. PLoS One. 8:79340. [PubMed](#)
65. Cao W, *et al.* 2017. Immunity. 47:1182. [PubMed](#)
66. Wang C, *et al.* 2021. Cell Rep. 37:110021. [PubMed](#)
67. Suah AN, *et al.* 2021. J Clin Invest. 131:. [PubMed](#)
68. Vijay R, *et al.* 2015. J Exp Med. 212: 1851 - 1868. [PubMed](#)
69. Mingozi F, *et al.* 2016. EMBO Mol Med. 8: 1039 - 1051. [PubMed](#)
70. Hilpert C, *et al.* 2016. J Immunol. 197: 2780 - 2786. [PubMed](#)
71. Gary EN, *et al.* 2021. iScience. 24(7):102699. [PubMed](#)
72. Fujita Y *et al.* 2018. Cell reports. 24(12):3296-3311 . [PubMed](#)
73. Samarchith P Kurup *et al.* 2019. Cell host & microbe. 25(4):565-577 . [PubMed](#)
74. Zhang D, *et al.* 2020. Signal Transduct Target Ther. 5:24. [PubMed](#)
75. Lai C, *et al.* 2009. Invest Ophthalmol Vis Sci. 50:4279. [PubMed](#)
76. Wei JL, *et al.* 2021. J Immunother Cancer. 9: . [PubMed](#)
77. MacDonald A, *et al.* 2021. Front Immunol. 12:755995. [PubMed](#)
78. Yang K, *et al.* 2022. J Clin Invest. 132:. [PubMed](#)
79. Mills C, *et al.* 2022. Cells. 11:. [PubMed](#)
80. Guo W, *et al.* 2022. J Immunother Cancer. 10:. [PubMed](#)
81. Wang B, *et al.* 2022. Nat Commun. 13:3821. [PubMed](#)
82. Li H, *et al.* 2022. Theranostics. 12:6422. [PubMed](#)
83. Marks KE, *et al.* 2021. Cell Reports. 35(13):109303. [PubMed](#)
84. Zhu XG, *et al.* 2020. Cell Metabolism. 33(1):211-221.e6. [PubMed](#)
85. Len-Letelier RA, *et al.* 2020. Frontiers in Immunology. 11:583382. [PubMed](#)
86. Domeier P, *et al.* 2016. J Exp Med. 213: 715 - 732. [PubMed](#)
87. Harty J 2009. Infect Immun. 77:1894. [PubMed](#)
88. Maluski M, *et al.* 2019. J Clin Invest. 129:5108. [PubMed](#)
89. Deng Z, *et al.* 2017. Oncogene. 36:639. [PubMed](#)
90. Liu D *et al.* 2019. Immunity. 51(1):64-76 . [PubMed](#)
91. Luo Y *et al.* 2019. Cell reports. 26(7):1869-1879 . [PubMed](#)
92. Yang S, *et al.* 2019. Nat Commun. 10:2782. [PubMed](#)
93. Snell LM, *et al.* 2018. Immunity. 49:678. [PubMed](#)
94. Fatkhullina AR *et al.* 2018. Immunity. 49(5):943-957 . [PubMed](#)
95. Wang W, *et al.* 2022. Aging Cell. 21:e13630. [PubMed](#)
96. Wu L, *et al.* 2022. Theranostics. 12:842. [PubMed](#)
97. Bhattacharya D, *et al.* 2014. J Biol Chem. 289:16508. [PubMed](#)
98. El-Zaatari M, *et al.* 2014. J Immunol. 193:807. [PubMed](#)
99. Souza COS, *et al.* 2021. iScience. 24(6):102548. [PubMed](#)
100. Peng Y 2017. PLoS One. 10.1371/journal.pone.0188112. [PubMed](#)
101. Dietmar Herndler-Brandstetter *et al.* 2018. Immunity. 48(4):716-729 . [PubMed](#)
102. Sinclair LV *et al.* 2019. Elife. 8 pii: e44210. [PubMed](#)
103. Niemann J, *et al.* 2019. Nat Commun. 10:3236. [PubMed](#)
104. Kim C, *et al.* 2019. Cell Rep. 29:2202. [PubMed](#)
105. Mao FY, *et al.* 2021. Cell Mol Gastroenterol Hepatol. 12:395. [PubMed](#)
106. Shi R, *et al.* 2022. Theranostics. 12:875. [PubMed](#)
107. Grigoryan L, *et al.* 2022. NPJ Vaccines. 7:55. [PubMed](#)
108. Xu Z, *et al.* 2020. Cancer Immunol Res. 1354:8. [PubMed](#)
109. Harb H, *et al.* 2021. Immunity. 54(6):1186-1199.e7. [PubMed](#)
110. Ringel AE, *et al.* 2020. Cell. 183(7):1848-1866.e26. [PubMed](#)
111. Ouyang W, *et al.* 2021. Invest Ophthalmol Vis Sci. 62:25:00. [PubMed](#)
112. Baban B, *et al.* 2021. JCI Insight. 6:00. [PubMed](#)
113. Knocke S, *et al.* 2016. Cell Rep. 17:2234-2246. [PubMed](#)
114. Qi S *et al.* 2016. eLife. 5 pii: e14756. [PubMed](#)
115. van Montfoort N, *et al.* 2018. Cell. 175:1744. [PubMed](#)
116. Park JY, *et al.* 2019. Cell Rep. 27:2548. [PubMed](#)
117. Malik A *et al.* 2018. Immunity. 49(3):515-530 . [PubMed](#)
118. Bankoti R, *et al.* 2017. Sci Rep. 10.1038/s41598-017-12171-3. [PubMed](#)
119. Yong L, *et al.* 2022. Nat Commun. 13:4255. [PubMed](#)
120. Zeng Q, *et al.* 2022. Front Immunol. 13:740805. [PubMed](#)
121. Yuan Y, *et al.* 2022. Cell Rep. 38:110256. [PubMed](#)
122. Takeshita Y, *et al.* 2021. Neurol Neuroimmunol Neuroinflamm. 8:. [PubMed](#)
123. Reinfeld BI, *et al.* 2021. Nature. 593:282. [PubMed](#)
124. Lu X, *et al.* 2015. J Immunol. 194:2011. [PubMed](#)
125. Uddback I, *et al.* 2016. Sci Rep. 6:20137. [PubMed](#)
126. Faust HJ, *et al.* 2020. J Clin Invest. 130:5493. [PubMed](#)
127. Trefzer A, *et al.* 2021. Cell Reports. 34(6):108748. [PubMed](#)
128. Huang F, *et al.* 2018. Oncoimmunology. 7:e1450713. [PubMed](#)
129. Levesque S, *et al.* 2019. Oncoimmunology. 8:e1657375. [PubMed](#)
130. Liang J, *et al.* 2020. Sci Adv. 6:eabc3646. [PubMed](#)

131. Matundan HH, *et al.* 2021. J Virol. 95:e0103621. [PubMed](#)
132. Zheng D, *et al.* 2022. Acta Pharm Sin B. 12:2740. [PubMed](#)
133. Li YN, *et al.* 2022. Nat Commun. 13:4074. [PubMed](#)
134. Yang B, *et al.* 2022. Bioengineered. 13:2685. [PubMed](#)
135. Ni J, *et al.* 2020. Immunity. 52(6):1075-1087.e8. [PubMed](#)
136. Chou T, *et al.* 2016. Nat Commun. 7:11904. [PubMed](#)
137. Murakami R, *et al.* 2013. PLoS One. 8:73270. [PubMed](#)
138. Tonkin D, *et al.* 2008. J Immunol. 181:4516. [PubMed](#)
139. Ying Zhang *et al.* 2017. Cancer cell. 32(3):377-391. [PubMed](#)
140. Frost JN, *et al.* 2021. Med (N Y). 2:164. [PubMed](#)
141. Daneshmandi S, *et al.* 2021. Elife. 10:. [PubMed](#)
142. Dai R, *et al.* 2021. Front Immunol. 12:727046. [PubMed](#)
143. Maulloo CD, *et al.* 2021. Front Immunol. 12:714842. [PubMed](#)
144. Ma X, *et al.* 2020. Immunity. 53:1315. [PubMed](#)
145. Wang H, *et al.* 2020. Nat Mater. 1.655555556. [PubMed](#)
146. Wei Z, *et al.* 2021. Nat Commun. 0.805555556. [PubMed](#)
147. van Vloten JP, *et al.* 2019. Mol Ther Methods Clin Dev. 13:154. [PubMed](#)
148. Dudeck J, *et al.* 2019. J Allergy Clin Immunol. 143:1849. [PubMed](#)
149. Montfort M, *et al.* 2004. J Immunol. 173:4084. [PubMed](#)
150. Ryan NM, *et al.* 2022. Front Immunol. 13:932742. [PubMed](#)
151. Pandit M, *et al.* 2021. Eur J Immunol. 51:1461. [PubMed](#)
152. Zeng Q, *et al.* 2022. iScience. 25:105151. [PubMed](#)
153. Derada Troletti C, *et al.* 2021. Cell Reports. 35(9):109201. [PubMed](#)
154. Dekhtiarenko I, *et al.* 2016. PLoS Pathog. 12:e1006072. [PubMed](#)
155. Kang J, Lee J, Chang J 2016. PLoS One. 11: 0157015. [PubMed](#)
156. Cabrera-Perez C, *et al.* 2015. J Immunol. 194:1609-20. [PubMed](#)
157. Jin R, *et al.* 2008. J Immunol. 180:2256. [PubMed](#)
158. Muri J, *et al.* 2020. eLife. 9:e53627. [PubMed](#)
159. Gorman JA, *et al.* 2019. Front Immunol. 10:44. [PubMed](#)
160. Ouyang S, *et al.* 2019. J Immunol. 202:1441. [PubMed](#)
161. Rosenbaum SR, *et al.* 2020. Cell Rep. 30:510. [PubMed](#)
162. Wong YC, *et al.* 2019. J Virol. 93:e01154-19. [PubMed](#)
163. Nenasheva T, *et al.* 2017. PLoS One. 12(6):e0178983. [PubMed](#)
164. Tajima M, *et al.* 2022. Curr Protoc. 2:e540. [PubMed](#)
165. Ghorbani S, *et al.* 2022. Nat Commun. 13:2445. [PubMed](#)
166. Gupta S, *et al.* 2022. Life Sci. 288:120182. [PubMed](#)
167. Zhang X, *et al.* 2021. Front Pharmacol. 12:629513. [PubMed](#)
168. Hartwig S, *et al.* 2014. PLoS One. 9:90720. [PubMed](#)
169. M H, *et al.* 2016. Open Bio. 6: 150208. [PubMed](#)
170. Moon J, *et al.* 2020. Immune Netw. 20:e40. [PubMed](#)
171. Fang Y, *et al.* 2021. J Clin Invest. 131:00:00. [PubMed](#)
172. Varikuti S, *et al.* 2020. Br J Cancer. 122:1005. [PubMed](#)
173. Kovacs SB, *et al.* 2021. STAR Protoc. 2:100244. [PubMed](#)
174. Jiang L, *et al.* 2020. Cell. 183(5):1219-1233.e18. [PubMed](#)
175. Daneshmandi S, *et al.* 2021. Cell Reports. 34(10):108831. [PubMed](#)
176. Kang YH, *et al.* 2019. Nat Commun. 10:912. [PubMed](#)
177. Oliveira AC *et al.* 2017. eLife. 6 pii: e30883. [PubMed](#)
178. Li E, *et al.* 2021. Front Immunol. 12:667177. [PubMed](#)
179. Wu J, *et al.* 2021. STAR Protoc. 2:101022. [PubMed](#)
180. Lai Y, *et al.* 2022. Clin Transl Med. 12:e999. [PubMed](#)
181. Karanika S, *et al.* 2022. Front Immunol. 13:972266. [PubMed](#)
182. Kurihara T, *et al.* 2015. PLoS One. 10: e0139692. [PubMed](#)
183. Flesch I, *et al.* 2015. J Immunol. 195: 2263-2272. [PubMed](#)
184. Lee J, *et al.* 2007. Nat Immunol. 8:181. [PubMed](#)
185. Liu Y, *et al.* 2018. Cancer Cell. 33:480. [PubMed](#)
186. Kung YJ, *et al.* 2022. J Biomed Sci. 29:57. [PubMed](#)
187. Link CWM, *et al.* 2020. Front Immunol. 11:596772. [PubMed](#)
188. Byrne K, *et al.* 2014. J Immunol. 192:1433. [PubMed](#)
189. Montes de Oca M, *et al.* 2016. PLoS Pathog. 12: 1005398. [PubMed](#)
190. Zhang D, *et al.* 2020. Signal Transduct Target Ther. 5:24. [PubMed](#)
191. Xu W, *et al.* 2021. Immunity. 54(3):526-541.e7. [PubMed](#)
192. Okuyama Y, *et al.* 2020. FASEB J. 540:34. [PubMed](#)
193. Sparber F, *et al.* 2019. Cell Host Microbe. 25:389. [PubMed](#)
194. Dokoshi T, *et al.* 2020. Cell Rep. 30:61. [PubMed](#)
195. Renner K, *et al.* 2020. Cell Reports. 29(1):135-150.e9. [PubMed](#)
196. Sun Y, *et al.* 2020. J Immunol. 205:2649. [PubMed](#)
197. Neckermann P, *et al.* 2021. Front Immunol. 12:761214. [PubMed](#)
198. Wagner AK, *et al.* 2022. iScience. 25:105137. [PubMed](#)
199. Xu C, *et al.* 2021. Cell Reports. 35(11):109235. [PubMed](#)
200. Sheng J, *et al.* 2021. eLife. 10:00. [PubMed](#)
201. Chen S, *et al.* 2015. Cancer Res. 7: 519-531. [PubMed](#)
202. Bransi A, *et al.* 2015. Cancer Immunol Res. 3: 1279 - 1288. [PubMed](#)
203. Yu H, *et al.* 2015. PLoS One. 10: 0143001. [PubMed](#)
204. Kwak JE, *et al.* 2019. Nat Commun. 10:3836. [PubMed](#)
205. Lu Y, *et al.* 2018. Cancer Cell. 33:1048. [PubMed](#)
206. Ding Z, *et al.* 2017. Sci Rep. 10.1038/s41598-017-12488-z [PubMed](#)
207. Chryplewicz A, *et al.* 2022. Cancer Cell. 40:1111. [PubMed](#)
208. van Loon K, *et al.* 2022. Cancers (Basel). 14:. [PubMed](#)
209. Wang J, *et al.* 2021. Am J Cancer Res. 11:2005. [PubMed](#)
210. Yang N, *et al.* 2021. NPJ Precis Oncol. 5:37. [PubMed](#)

211. Tang-Huau TL, *et al.* 2021. *Viruses*. 13: . [PubMed](#)
 212. Wang F, *et al.* 2021. *Neoplasia*. 23:281. [PubMed](#)
 213. Li M, *et al.* 2020. *J Immunother Cancer*. 8:00. [PubMed](#)
 214. Kim SI, *et al.* 2020. *Molecular Cancer Therapeutics*. 20(1):173-182. [PubMed](#)
 215. Wu L, *et al.* 2020. *Cancer Immunol Res*. 710:8. [PubMed](#)
 216. Steinmann S, *et al.* 2020. *Sci Rep*. 1.160416667. [PubMed](#)
 217. Yang L, *et al.* 2021. *Front Immunol*. 12:722273. [PubMed](#)
 218. Schäfer AL, *et al.* 2021. *Front Immunol*. 12:696810. [PubMed](#)
 219. Tang L, *et al.* 2022. *Front Immunol*. 12:770402. [PubMed](#)
 220. Jackson C, *et al.* 2016. *Clin Cancer Res*. 22: 1161 - 1172. [PubMed](#)
 221. Muri J, *et al.* 2020. *Cell Reports*. 30(13):4399-4417. [PubMed](#)
 222. Aurélien Trompette *et al.* 2018. *Immunity*. 48(5):992-1005 . [PubMed](#)
 223. Kalim KW, *et al.* 2021. *Front Immunol*. 12:726393. [PubMed](#)
 224. Shi GN, *et al.* 2021. *Ther Adv Med Oncol*. 13:1758835920987056. [PubMed](#)
 225. Amend A, *et al.* 2021. *Int J Mol Sci*. 22: . [PubMed](#)
 226. Ding X, *et al.* 2021. *Front Immunol*. 12:667136. [PubMed](#)

RRID AB_315403 (BioLegend Cat. No. 505809)
 AB_315404 (BioLegend Cat. No. 505810)

Antigen Details

Structure	Cytokine; dimer; 40-80 kD (Mammalian)
Bioactivity	Antiviral/antiparasitic activities; inhibits proliferation; enhances MHC class I and II expression on APCs
Cell Sources	CD8 ⁺ and CD4 ⁺ T cells, NK cells
Cell Targets	T cells, B cells, macrophages, NK cells, endothelial cells, fibroblasts
Receptors	IFN-γRα (CDw119) dimerized with IFN-γRβ (AF-1)
Cell Type	Tregs
Biology Area	Cell Biology, Immunology, Neuroinflammation, Neuroscience
Molecular Family	Cytokines/Chemokines
Antigen References	1. Fitzgerald K, <i>et al.</i> Eds. 2001. <i>The Cytokine FactsBook</i> . Academic Press, San Diego. 2. De Maeyer E, <i>et al.</i> 1992. <i>Curr. Opin. Immunol</i> . 4:321. 3. Farrar M, <i>et al.</i> 1993. <i>Annu. Rev. Immunol</i> . 11:571. 4. Gray P, <i>et al.</i> 1987. <i>Lymphokines</i> 13:151.
Regulation	Upregulated by IL-2, FGF-basic, EGF; downregulated by 1-α-25-Dihydroxy vitamin D3, dexamethasone
Gene ID	15978

Related Protocols

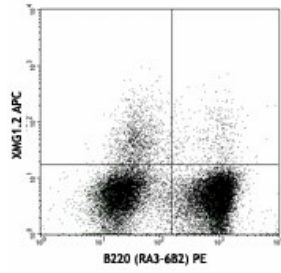
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

APC anti-mouse IFN-γ, Biotin anti-mouse IFN-γ, FITC anti-mouse IFN-γ, PE anti-mouse IFN-γ, Purified anti-mouse IFN-γ, Alexa Fluor® 488 anti-mouse IFN-γ, Alexa Fluor® 647 anti-mouse IFN-γ, Pacific Blue™ anti-mouse IFN-γ, PerCP/Cyanine5.5 anti-mouse IFN-γ, PE/Cyanine7 anti-mouse IFN-γ, Brilliant Violet 421™ anti-mouse IFN-γ, Brilliant Violet 650™ anti-mouse IFN-γ, Ultra-LEAF™ Purified anti-mouse IFN-γ, Brilliant Violet 711™ anti-mouse IFN-γ, Brilliant Violet 785™ anti-mouse IFN-γ, Brilliant Violet 605™ anti-mouse IFN-γ, Brilliant Violet 510™ anti-mouse IFN-γ, Purified anti-mouse IFN-γ (Maxpar® Ready), PE/Dazzle™ 594 anti-mouse IFN-γ, Alexa Fluor® 700 anti-mouse IFN-γ, APC/Cyanine7 anti-mouse IFN-γ, GolnVivo™ Purified anti-mouse IFN-γ, APC/Fire™ 750 anti-mouse IFN-γ, Spark NIR™ 685 anti-mouse IFN-γ

Product Data



PMA/Ionomycin-stimulated (6hrs)
C57BL/6 mouse splenocytes stained
with XMG1.2 APC and B220 (RA3-6B2)
PE

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587