PE anti-mouse I-A^k ($A\beta^k$) Antibody

Catalog# / Size	109908 / 200 µg
Clone	10-3.6
Regulatory Status	RUO
Other Names	MHC class II
Isotype	Mouse (CWB) IgG2a, κ
Description	The 10-3.6 antibody reacts with the β chain of the I-A^k MHC class II alloantigen. This class II molecule is expressed on antigen presenting cells (including B cells) and a subset of T cells from H-2^k bearing mice and involved in antigen presentation to T cells expressing CD3/TCR and CD4 proteins. The 10-3.6 antibody cross-reacts with I-$A^{f,r,s}$ antigens and I-A^{g7} of NOD mice; it does not react with other haplotypes (*e.g.,* b, d, p, q).

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	C3H mouse splenocytes
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
Concentration	0.2 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze.**
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤0.06 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Additional reported applications (for the relevant formats) include immunoprecipitation[1,2], protection against autoimmune IDDM[3], *in vitro* blocking of antigen-specific MHC-restricted responses and *in vivo* inhibition of lymphoma growth[4], and immunohistochemical staining[5] of acetone-fixed frozen sections. This clone does not cross react with other haplotypes (e.g. b, d, p, q).

Application References

1. Landais D, *et al.* 1986. *J. Immunol.* 137:3002. (IP)
2. Kupinski JM, *et al.* 1983. *J. Immunol.* 130:2277. (IP)
3. Kappler JW, *et al.* 1981. *J. Exp. Med.* 153:1198.
4. Alisauskas RM, *et al.* 1986. *Immunopharmacology* 12:1.
5. Reis e Sousa and Germain 1999. *J. Immunol.* 162:6652. (IHC)
6. Yui MA, *et al.* 2010. *J. Immunol.* 185:284. PubMed
7. Gaudreau S, *et al.* 2007. *J. Immunol.* 179:3638. (FC)
8. Busman-Sahay K, *et al.* 2011. *J. Immunol.* 186:6710. PubMed.

Product Citations

1. Menzel L, *et al.* 2021. Cell Rep. 37:109878. PubMed
2. Wu J, *et al.* 2021. Mol Med Rep. 23:. PubMed

3. Mulas F, *et al.* 2020. Cell Mol Immunol. . PubMed
4. Wang H, *et al.* 2020. Nat Mater. 1.655555556. PubMed
5. Stephens WZ, *et al.* 2021. Cell Rep. 37:109916. PubMed

RRID AB_313457 (BioLegend Cat. No. 109908)

Antigen Details

Structure	β chain of MHC class II
Distribution	B cell and activated T cells, APCs of H-2^b mice
Function	Antigen presentation
Ligand/Receptor	CD3/TCR, CD4
Cell Type	Antigen-presenting cells, B cells, T cells, Tregs
Biology Area	Immunology, Innate Immunity
Molecular Family	MHC Antigens
Antigen References	1. Watts C. 1997. *Ann. Rev. Immunol.* 15:821. 2. Pamer E, *et al.* 1998. *Ann. Rev. Immunol.* 16:323.
Gene ID	14960

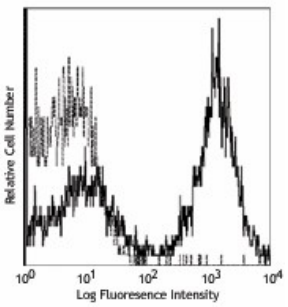
Related Protocols

Cell Surface Flow Cytometry Staining Protocol

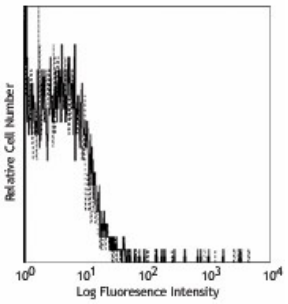
Other Formats

FITC anti-mouse I-A^k ($A\beta^k$), PE anti-mouse I-A^k ($A\beta^k$), Purified anti-mouse I-A^k ($A\beta^k$)

Product Data



C3H/He mouse splenocytes stained with 10-3.6 PE



BALB/c mouse splenocytes stained with 10-3.6 biotin and detected with Sav-PE

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