SONY

Product Data Sheet

Brilliant Violet 711™ anti-human FcεRIα

Catalog # / Size: 2273190 / 100 tests
2273185 / 25 tests

Clone: AER-37 (CRA-1)

Isotype: Mouse IgG2b, κ

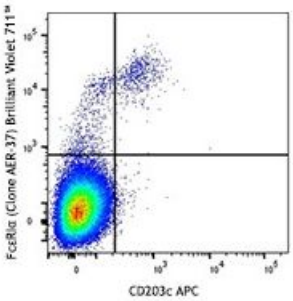
Reactivity: Human, Non-human primate, Other

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 711™ under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

Workshop Number: VI CD72.1

Concentration: Lot-specific



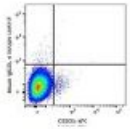
Human peripheral blood lymphocytes were stained with CD203c APC and FcεRIα (clone AER-37) Brilliant Violet 711™ (top) or mouse IgG2b, κ Brilliant Violet 711™ isotype control (bottom).

Applications:

Applications: Flow Cytometry

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 ≤5 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 711™ excites at 405 nm and emits at 711 nm. The bandpass filter 710/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 711™ is a trademark of Sirigen Group Ltd.



Human peripheral blood lymphocytes were stained with CD203c APC and FcεRIα (clone AER-37) Brilliant Violet 711™ (top) or mouse IgG2b, κ Brilliant Violet 711™ isotype control (bottom).

Application Notes: Clone AER-37 (CRA-1) has been reported to bind the receptor even in the presence of IgE.4

Application References:

1. Yamaguchi M, *et al.* 1999. *J. Immunol.* 162:5455.
2. Suzukawa M, *et al.* 2005. *Int. Immunol.* 17:1249.
3. Charles N, *et al.* 2010. *Nat. Med.* 16:701. (FC) PubMed
4. Yamaguchi M, *et al.* 1999. *J. Immunol.* 162:5455.

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Description: High affinity IgE receptor (FcεRI) plays a key role in IgE-mediated allergic immune response. FcεRI is a tetrameric receptor complex, which is composed of one α-subunit (FcεRIα), one β-subunit, and two γ-subunits. FcεRIα directly binds IgE with high affinity, while the β- and γ-chains are responsible for mediating intracellular signals. FcεRIα is a 50 kD transmembrane protein with Ig superfamily structure. It is primarily found on mast cells and basophils. Further studies have indicated that FcεRIα is also expressed on many inflammatory cells including cutaneuos Langerhans cells, dendritic cells, monocytes of patients with allergic disorders, platelets, bronchial epithelial cells, eosinophils produced in hypereosinophilic syndrome, and neutrophils from allergy-induced asthma patients.

Antigen References:

1. Riske F, *et al.* 1991. *J. Biol. Chem.* 266:11245
2. Gounni AS, *et al.* 2001. *FASEB J.* 15:940.
3. Maurer D, *et al.* 1996. *J. Immunol.* 157:607
4. Maurer d, *et al.* 1994. *J. Exp. Med.* 179:745
5. Campbell AM, *et al.* 1998. *Am. J. Respir. Cell Mol. Biol.* 19:92.

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