SONY

Product Data Sheet

Brilliant Violet 605™ anti-human FcÎµRIα

Catalog # / Size: 2273140 / 100 tests
2273135 / 25 tests

Clone: AER-37 (CRA-1)

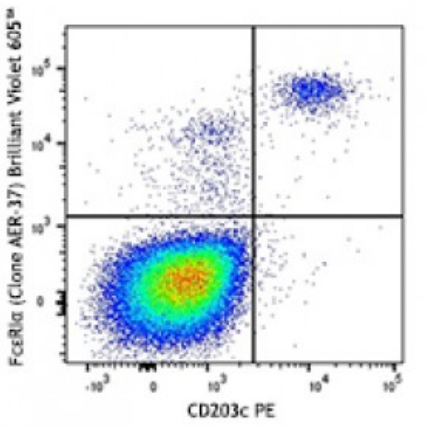
Isotype: Mouse IgG2b, κ

Reactivity: Human

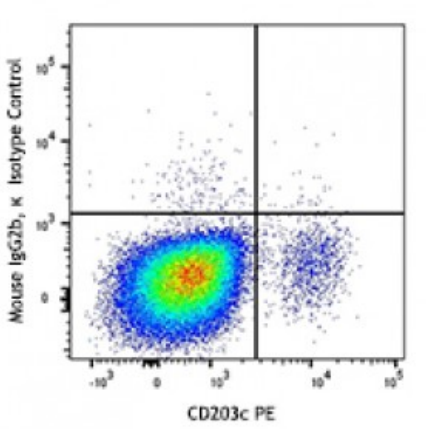
Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 605™ and unconjugated antibody.

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

Concentration: Lot-specific



Human peripheral blood lymphocytes were stained with CD203c PE and FcεRIα (clone AER-37 (CRA-1)) Brilliant Violet 605™ (top) or mouse IgG2b, κ Brilliant Violet 605™ 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 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 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 605™ is a trademark of Sirigen Group Ltd.

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the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.

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.

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. E*