Technical Data Sheet

Purified Mouse Anti-Human IgE

Product Information

Material Number: 555857
Alternate Name: Immunoglobulin E; IGHE; IGH; Ig epsilon chain constant region
Size: 0.5 mg
Concentration: 0.5 mg/ml
Clone: G7-26
Isotype: Mouse IgG2a, κ
Reactivity: QC Testing: Human
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The G7-26 monoclonal antibody specifically recognizes the constant region of human Immunoglobulin E (IgE). It does not crossreact with other immunoglobulin heavy chain isotypes. IgE exists in a transmembrane form that is expressed by B lymphocytes and serves as an antigen receptor. Soluble IgE is produced and secreted by activated B cells and plasma cells. IgE may bind through its constant region to cell surface receptors, such as the high-affinity (FcεRI) or low-affinity (FcεRII/CD23) receptors for IgE. FcεRI is expressed on mast cells, basophils, and at lower levels, on dendritic cells and monocytes. FcεRII/CD23 is expressed by B cells and by some other cell types including T cells, monocytes, eosinophils, neutrophils, follicular dendritic cells, and Langerhans cells. Crosslinking of Fc receptor-bound IgE antibodies by multivalent antigens or allergens can induce phagocytosis or the cellular release of inflammatory mediators. Although IgE can provide immune protection against pathogenic parasites, it may also play a central role in a variety of allergic disorders.

Preparation and Storage

Store undiluted at 4°C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application
ELISA Routinely Tested

Recommended Assay Procedure:
For current recommendations of pairing mAbs to be used in two-site quantitative ELISA, please refer to the product information sheet under "ELISA and ELISPOT" at our website: http://www.bdbiosciences.com/us/s/resources.

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
3. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.

References

Foster B, Metcalfe DD, Prussin C. Human dendritic cell 1 and dendritic cell 2 subsets express Fc epsilon RI: correlation with serum IgE and allergic asthma. J Allergy Clin Immunol. 2003; 112(6):1132-8. (Biology)