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Product Information

Anti-Pentraxin 3 antibody, Mouse monoclonal
Clone PTX3-5, purified from hybridoma cell culture

Product Number **SAB4200773**

Product Description

Anti-Pentraxin 3 antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the PTX3-5 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mouse immunized with recombinant human Pentraxin 3 protein expressed in HEK-293 cells (Product Number MSST0004, GeneID 5806). The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents (Product Number ISO2). The antibody is purified from culture supernatant of hybridoma cells.

Anti-Pentraxin 3 antibody, Mouse monoclonal recognizes both glycosylated and non-glycosylated human PTX3. The product may be used in several immunochemical techniques including Immunoblotting (monomer at ~47 kDa) and immunoprecipitation.

Pentraxin 3 (PTX3), known also as Pentraxin-related protein, Pentaxin-related protein, Tumor necrosis factor (TNF) alpha-induced protein 5, Tumor necrosis factor-inducible gene 14 protein (TSG-14), is a highly glycosylated secreted protein usually found in covalently-bound homooctamers. PTX3 belongs to the pentraxin superfamily, sharing the C-terminal domain with short pentraxins and containing a unique N-terminal domain.[1] PTX3 is an acute phase protein produced and released at inflammatory sites by diverse cell types including monocytes/macrophages, dendritic cells, endothelial cells, vascular smooth muscle cells, fibroblasts and adipocytes.[2-3] PTX3 is released in response to primary inflammatory signals, such as toll-like receptor engagement, TNFα and IL-1β.[1] It plays a role in the regulation of innate resistance to pathogens, inflammatory reactions, possibly clearance of self-components and female fertility. PTX3 functions as a soluble pathogen recognition receptor, confers resistance against pathogens and is involve in removal of apoptotic cells during immune response. PTX3 also associates with complement factor H, which is a complement regulator protein.[2]

At normal conditions PTX3 blood levels are relatively low. However, during endotoxic shock, sepsis, and other inflammatory and infectious conditions PTX3 levels increases dramatically correlating with the severity of the disease.[4] Thus, PTX3 is considered as a rapid marker for primary local activation of innate immunity and inflammation,[4-8] antiapoptotic cell survival,[4] cell cycle regulation,[5] cell adhesion,[6] tissue remodeling,[7] and lipid transportation.[8] In addition, PTX3 was found to be highly suppressed by pitavastatin, thus suggesting PTX3 to be a biomarker for inflammatory cardiovascular disease.[9]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.
Antibody Concentration: ~1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.5–1 μg/mL is recommended using purified recombinant human Pentraxin 3 protein.

Immunoprecipitation: a working concentration of 1–2 μg/test is recommended using lysate of HEK-293T cells overexpressing human Pentraxin 3.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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