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Product Information

Anti-PGAM5 (186-200)
produced in rabbit, IgG fraction of antiserum

Catalog Number **SAB1103344**

Product Description

Anti-PGAM5 (186-200) is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 186-200 of human PGAM5 (GeneID 192111), conjugated to KLH. Whole antiserum is purified using protein A immobilized on agarose to provide the IgG fraction of antiserum.

Anti-PGAM5 (186-200) specifically recognizes human PGAM5 (not tested with other species).The antibody can be used in several immunochemical techniques including immunoblotting. Detection of the PGAM5 band by immunoblotting is specifically inhibited by the immunizing peptide.

PGAM5 is a unique member of the phosphoglycerate mutase (PGAM) family of glycolytic enzymes which catalyzes reactions involving the transfer of phospho groups from carbon atoms of phosphoglycerate. Unlike the family, PGAM5 dephosphorylates proteins rather than small molecular substrates. PGAM5 is a protein Ser/Thr phosphatase unrelated to the other known families of Ser/Thr phosphatases.[1]

The *PGAM5* gene encodes two protein isoforms, PGAM5-L and PGAM5-S, which result from alternative splicing. Both PGAM5 isoforms contain an N-terminal region of 100 amino acids, which includes a conserved NXESGE motif that is required for binding to Keap1, and a C-terminal phosphoglycerate mutase (PGAM) domain, which binds to Bcl-X_L.[2]
It was found that PGAM5 has a role in executing several necrosis pathways, but not apoptotic pathways, in human cell lines.[3] Upon induction of necrosis by TNF-α, both PGAM5L and PGAM5S are phosphorylated and interact with a necrosis complex that includes the kinases RIP1, RIP3 and MLKL.[3]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material 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, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working dilution of 1:1,000-1:2000 is recommended using lysates of HEK-293T cells over-expressing human recombinant PGAM5 protein.

Immunohistochemistry: a working dilution of 1:300 is recommended using formalin-fixed, paraffin-embedded human pancreas tissue.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

1. Takeda, K., et al., *Proc. Nat. Acad. Sci. USA*, **106**, 12301-12305 (2009).
2. Lo, S.-C., and Hannink, M., *J. Biol. Chem.*, **281**, 37893-37903 (2006).
3. Wang, Z., et al., *Cell*, **148**, 228-243 (2012).

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