

Polyclonal Anti-GBP1 Antibody

Catalog Number: PA1550

Description

Gene Name	guanylate binding protein 1, interferon-inducible
Recommended Protein Name	Interferon-induced guanylate-binding protein 1
Lot No.	0151112c0150121
Size	100µg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	Reacts with: human
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human GBP1(566-589aa QKESRIMKNEIQDLQTKMRRRKAC).
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .

Application

	Concentration	Tested Species	Predicted Species	Antigen Retrieval
Western blot	0.1-0.5µg/ml	Hu	-	-

Tested Species: In-house tested species with positive results.

Predicted Species: Species predicted to be fit for the product based on sequence similarities.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage: At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time.

Avoid repeated freezing and thawing.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB.

Background

Interferons induce a large number of genes in their target cells, including those coding for guanylate-binding proteins (GBPs). GBPs, such as GBP1, are characterized by their ability to specifically bind guanine nucleotides (GMP, GDP, and GTP) and are distinguished from the GTP-binding proteins by the presence of 2 binding motifs rather than 3. The 593-amino acid GBP1 protein shares 77% and 88% identity with GBP2 and GBP3, respectively. All GBPs, including GBP1, have a conserved N-terminal globular GTP-binding domain containing 2 consensus sequences and a third T(L/V)RD sequence not found in other GTPases. The GBP1 gene maps to the GBP gene cluster on chromosome 1p22.2. It is located telomeric to GBP2 and centromeric to GBP3. High expression of GBP1, GBP2, and GBP3 are in endothelial cells after stimulation with IFNG, TNF, or IL1B.

Reference

1. Cheng, Y.-S. E., Patterson, C. E., Staeheli, P. Interferon-induced guanylate-binding proteins lack an N(T)KXD consensus motif and bind GMP in addition to GDP and GTP. *Molec. Cell. Biol.* 11: 4717-4725, 1991.
2. Olszewski, M. A., Gray, J., Vestal, D. J. In silico genomic analysis of the human and murine guanylate-binding protein (GBP) gene clusters. *J. Interferon Cytokine Res.* 26: 328-352, 2006.
3. Tripal, P., Bauer, M., Naschberger, E., Mortinger, T., Hohenadl, C., Cornali, E., Thureau, M., Sturzl, M. Unique features of different members of the human guanylate-binding protein family. *J. Interferon Cytokine Res.* 27: 44-52, 2007.