

Product Information

Anti-GIT1

produced in rabbit, affinity isolated antibody

Product Number **G0173**

Product Description

Anti-GIT1 is produced in rabbit using as the immunogen a synthetic peptide corresponding to a fragment of human GIT1 (GenelD: 28964), conjugated to KLH. The corresponding sequence is identical in human GIT1 isoforms 1 and 2, mouse GIT1, and is highly conserved (single amino acid substitution) in rat GIT1. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-GIT1 specifically recognizes human and rat GIT1 (not tested in other species). The antibody can be used in several immunochemical techniques including immunoblotting (~95 kDa). Detection of the GIT1 band by immunoblotting is specifically inhibited by the GIT1 immunizing peptide.

GIT1 (G protein-coupled receptor kinase interactor 1, also known as Cat-1, p95-APP1, and p95PKL) is an adaptor protein with GTPase-activating protein activity for the ADP-ribosylating factor.¹ Human GIT1 shares 65% sequence identity with human GIT2/Cat-2, an additional member of the GIT family (GITs).^{2,3} GIT1 is widely distributed and exists predominantly in its full-length form, whereas GIT2 is alternatively spliced in an extensive and tissue specific manner, resulting in at least 10 distinct splice variants and potentially 32 different transcripts. GIT proteins traffic between distinct cellular compartments such as focal adhesions, cell periphery, and cytoplasmic complexes regulating cell migration. GITs interact with several proteins including GRKs, ARF1, Rac1, Cdc42, PAK, MEK1, PLC γ 1, FAK, paxillin, and PAK-exchange-interacting factor (PIX).³⁻⁵ GITs and PIX interact to form large oligomeric complexes and transiently recruit other proteins to focal complexes. GITs also participate in receptor internalization by regulating membrane trafficking between the plasma membrane and endosomes, targeting ARFs to the ARF-GAP activity of GITs. GIT1 has also been suggested to play a pathogenic role in Huntington's disease.⁶

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: ~1.5 mg/mL

Precautions and Disclaimer

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

Store at -20 °C. For continuous use, the product may be stored at 2-8 °C for up to one month. For extended storage, freeze in working aliquots at -20 °C. 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 antibody concentration of 0.5-1 μ g/mL is recommended using rat brain extract (S1 fraction).

Immunoprecipitation: A working antibody amount of 15-20 μ g is recommended using a rat brain extract (S1 fraction).

Immunofluorescence: A working antibody concentration of 10-20 μ g/mL is recommended using human SH-SY5Y cells.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

1. Premont, R.T. et al., *Proc. Natl. Acad. Sci. USA*, **95**, 14082-14087 (1998).
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3. Hoefen, R.J., and Berk, B.C., *J. Cell Sci.*, **119**, 1469-1475 (2006).
4. Turner, C.E. et al., *J. Cell Biol.*, **145**, 851-863 (1999).
5. Haendeler, J. et al., *J. Biol. Chem.*, **278**, 49936-49944 (2003).
6. Goehler, H. et al., *Mol. Cell*, **15**, 853-865 (2004).

VS,ER,TD,KAA,PHC,MAM 04/19-1