

GTPBP9 (P-14): sc-132704

BACKGROUND

GTP-binding protein 9 (GTPBP9), also known as Obg-like ATPase 1 (OLA1), is a 396 amino acid protein that belongs to the Obg-related GTPase family under the translation factors (TRAFAC) class. Originally thought to only have GTPase activity, Obg-related GTPase family members have been shown to also have ATPase activity. In *Homo sapiens*, GTPBP9 exhibits a preference for binding ATP over GTP, with GTP binding occurring only at high nucleotide concentration. One cause for ATP affinity and GTP discrimination is thought to be a substitution of glutamine for a hydrophobic amino acid in Obg-related family members; this is the same substitution that inactivates Ras-like GTPases. GTPBP9 contains a C-terminal TGS domain that binds to ligands and an N-terminal G domain which binds nucleotides. GTPBP9 is expressed as three isoforms produced by alternative splicing.

CHROMOSOMAL LOCATION

Genetic locus: OLA1 (human) mapping to 2q31.1; Ola1 (mouse) mapping to 2 C3.

SOURCE

GTPBP9 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GTPBP9 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132704 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

GTPBP9 (P-14) is recommended for detection of GTPBP9 isoforms 1, 2 and 3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other GTPBP family members.

GTPBP9 (P-14) is also recommended for detection of GTPBP9 isoforms 1, 2 and 3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for GTPBP9 siRNA (h): sc-94782, GTPBP9 siRNA (m): sc-145833, GTPBP9 shRNA Plasmid (h): sc-94782-SH, GTPBP9 shRNA Plasmid (m): sc-145833-SH, GTPBP9 shRNA (h) Lentiviral Particles: sc-94782-V and GTPBP9 shRNA (m) Lentiviral Particles: sc-145833-V.

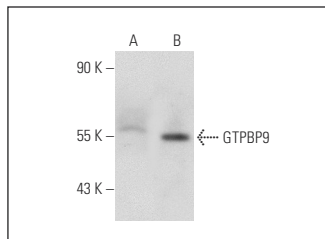
Molecular Weight of GTPBP9: 45 kDa.

Positive Controls: GTPBP9 (h): 293 Lysate: sc-113027.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



GTPBP9 (P-14): sc-132704. Western blot analysis of GTPBP9 expression in non-transfected: sc-110760 (A) and human GTPBP9 transfected: sc-113027 (B) 293 whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **GTPBP9 (G-6): sc-393946** or **GTPBP9 (F-10): sc-393231**, our highly recommended monoclonal alternatives to GTPBP9 (P-14).