

# GULP (E-4): sc-374591

## BACKGROUND

GULP (engulfment adaptor PTB domain containing 1) is a 304 amino acid protein encoded by the human gene GULP1. GULP is believed to function as an adapter protein, as it is required for efficient phagocytosis of apoptotic cells. GULP also helps modulate cellular glycosphingolipid and cholesterol transport. It also may play a role in the internalization and endosomal trafficking of various LRP1 ligands, such as PSAP. Increased cytoplasmic levels of GULP are associated with increases in cellular levels of GTP-bound ARF6. Found as a homodimer, GULP, interacts with Clathrin, GDP-bound ARF6, but not with GTP-bound ARF6. It is also found as part of a complex composed of GULP1, CENTB1 and ARF6. GULP is widely expressed and can be detected in macrophages, pancreas, kidney, skeletal muscle, heart, colon, intestine, lung, placenta and ovary.

## REFERENCES

- Liu, Q.A., et al. 1998. Candidate adaptor protein CED-6 promotes the engulfment of apoptotic cells in *C. elegans*. *Cell* 93: 961-972.
- Liu, Q.A., et al. 1999. Human CED-6 encodes a functional homologue of the *Caenorhabditis elegans* engulfment protein CED-6. *Curr. Biol.* 9: 1347-1350.
- Smits, E., et al. 1999. The human homologue of *Caenorhabditis elegans* CED-6 specifically promotes phagocytosis of apoptotic cells. *Curr. Biol.* 9: 1351-1354.
- Su, H.P., et al. 2000. Identification and characterization of a dimerization domain in CED-6, an adapter protein involved in engulfment of apoptotic cells. *J. Biol. Chem.* 275: 9542-9549.

## CHROMOSOMAL LOCATION

Genetic locus: GULP1 (human) mapping to 2q32.1; Gulp1 (mouse) mapping to 1 C1.1.

## SOURCE

GULP (E-4) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of GULP of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GULP (E-4) is available conjugated to agarose (sc-374591 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374591 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374591 PE), fluorescein (sc-374591 FITC), Alexa Fluor® 488 (sc-374591 AF488), Alexa Fluor® 546 (sc-374591 AF546), Alexa Fluor® 594 (sc-374591 AF594) or Alexa Fluor® 647 (sc-374591 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374591 AF680) or Alexa Fluor® 790 (sc-374591 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## RESEARCH USE

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

## APPLICATIONS

GULP (E-4) is recommended for detection of GULP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for GULP siRNA (h): sc-62427, GULP siRNA (m): sc-62428, GULP shRNA Plasmid (h): sc-62427-SH, GULP shRNA Plasmid (m): sc-62428-SH, GULP shRNA (h) Lentiviral Particles: sc-62427-V and GULP shRNA (m) Lentiviral Particles: sc-62428-V.

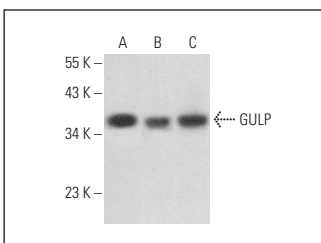
Molecular Weight of GULP: 35 kDa.

Positive Controls: C3H/10T1/2 cell lysate: sc-3801, Caki-1 cell lysate: sc-2224 or RPE-J cell lysate: sc-24771.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



GULP (E-4): sc-374591. Western blot analysis of GULP expression in Caki-1 (A), C3H/10T1/2 (B) and RPE-J (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Chen, Y.C., et al. 2019. Mesenchymal stem/stromal cell engulfment reveals metastatic advantage in breast cancer. *Cell Rep.* 27: 3916-3926.e5.
- Teramoto, Y., et al. 2021. Androgen receptor signaling induces cisplatin resistance via down-regulating GULP1 expression in bladder cancer. *Int. J. Mol. Sci.* 22: 10030.

## STORAGE

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