

GRB2 (54-164): sc-4035

BACKGROUND

The superfamily of GTP binding proteins, of which Ras proteins are prototypes, has been implicated in a broad range of biological activities. A family of guanine nucleotide releasing factors (GRFs) activate Ras in mammalian cells and growth factor receptor-bound protein 2 (GRB2), an adaptor protein (also referred to as Sem 5) that appears to mediate the interaction of GRFs with activated receptor molecules. GRB2 forms a complex with activated EGFR (epidermal growth factor receptor) and the Ras-specific guanine nucleotide exchange factor SOS1, and, together, they regulate the growth factor-induced activation of Ras. GRB2 exhibits both structural and functional homology to the *C. elegans* protein sem-5. GRB2 is necessary during embryogenesis for the differentiation of endodermal cells and formation of the epiblast.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GRB2 (human) mapping to 17q25.1; Grb2 (mouse) mapping to 11 E2.

SOURCE

GRB2 (54-164) is expressed in *E. coli* as a 42 kDa tagged fusion protein corresponding to amino acids 54-164 of GRB2 of mouse origin containing the amino terminal SH2 domain.

STORAGE

Store GRB2 (54-164): sc-4035 at -20° C and GRB2 (54-164) AC: sc-4035 AC at 4° C; stable for one year from the date of shipment.

PRODUCT

GRB2 (54-164) is purified from bacterial lysates (> 98%) by glutathione agarose chromatography and supplied as 50 µg purified protein in PBS containing 5 mM DTT and 50% glycerol.

Also available in agarose conjugate format; 100 µg purified GRB2 (54-164) protein conjugated to 0.1 ml agarose in PBS containing 0.1% azide, 0.1% BSA and 10% glycerol (50% slurry of agarose beads by volume): GRB2 (54-164) AC: sc-4035 AC.

APPLICATIONS

GRB2 (54-164) in its soluble, non-conjugated form (sc-4035) is recommended for purification of target proteins containing appropriate phosphotyrosine binding sites when used in combination with glutathione agarose (sc-2009).

Alternatively, the agarose conjugated form of this product (sc-4035 AC) can be used directly for target protein binding.

Molecular Weight of GRB2: 25-31 kDa.

SELECT PRODUCT CITATIONS

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RESEARCH USE

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