

Ilp45 (E-16): sc-243066

BACKGROUND

Glioblastoma multiforme (GBM) is considered the most common and most aggressive form of primary brain tumor in humans. It is suggested that most glioblastoma tumors appear to be sporadic, without any genetic predisposition. GBM is characterized by the presence of small areas of necrotizing tissue that are surrounded by anaplastic cells. Patients experience seizure, headache, hemiparesis, progressive memory loss and neurological problems due to temporal and frontal lobe involvement. Treatment is difficult and the survival rate remains very low. Thus, a better understanding of the glioma invasion process is required to develop new therapeutic strategies. The identification of an invasion inhibitory protein, Ilp45 (invasion-inhibitory protein 45), also known as D4Wsu114e, was discovered to be underexpressed in GBM patients. It is suggested that Ilp45 inhibits glioma cell migration and invasion. Considered a tumor suppressor, Il45p can be inactivated by frequent point mutations. Ilp45 contains three SEG (segment of low compositional complexity) domains and an integrin-binding RGD motif. Three isoforms exist due to alternative splicing events.

REFERENCES

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3. Frommer, K.W., et al. 2006. IGF-independent effects of IGFBP-2 on the human breast cancer cell line Hs578T. *J. Mol. Endocrinol.* 37: 13-23.
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5. Dunlap, S.M., et al. 2007. Insulin-like growth factor binding protein 2 promotes glioma development and progression. *Proc. Natl. Acad. Sci. USA* 104: 11736-11741.
6. Demuth, T., et al. 2008. Glioma cells on the run—the migratory transcriptome of 10 human glioma cell lines. *BMC Genomics* 9: 54.
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CHROMOSOMAL LOCATION

Genetic locus: MIIP (human) mapping to 1p36.22.

SOURCE

Ilp45 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Ilp45 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-243066 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ilp45 (E-16) is recommended for detection of Ilp45 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 Ilp45 siRNA (h): sc-88569, Ilp45 shRNA Plasmid (h): sc-88569-SH and Ilp45 shRNA (h) Lentiviral Particles: sc-88569-V.

Molecular Weight of Ilp45: 45 kDa.

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) 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.

STORAGE

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

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.