

laeverin (G-14): sc-164825

BACKGROUND

Laeverin, also known as APQ (aminopeptidase Q), CHL2 antigen or LVRN, is a 990 amino acid member of the peptidase M1 family and contains an HEXXH18E gluzincin motif and an H(G)AMEN motif. Expressed specifically in placenta on embryo-derived extravillous trophoblasts (EVTs), laeverin localizes to the cell membrane and is a single-pass type II membrane protein. Laeverin binds zinc and functions as a bestatin-sensitive leucine aminopeptidase with a potential role in EVT function. This suggests that laeverin may be involved in human placentation, during which EVT's invade maternal decidua and spiral arteries. More specifically, laeverin may function by regulating the activities of key peptides at the embryo-maternal interface. Laeverin has a broad substrate specificity but exhibits a preference for Leu-4-methylcoumaryl-7-amide. In addition, laeverin can form a homodimer with intermolecular disulfide bond(s).

REFERENCES

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3. Fujiwara, H., Higuchi, T., Sato, Y., Nishioka, Y., Zeng, B.X., Yoshioka, S., Tatsumi, K., Ueda, M. and Maeda, M. 2005. Regulation of human extravillous trophoblast function by membrane-bound peptidases. *Biochim. Biophys. Acta* 1751: 26-32.
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CHROMOSOMAL LOCATION

Genetic locus: AQPEP (human) mapping to 5q23.1.

SOURCE

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

STORAGE

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

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-164825 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

laeverin (G-14) is recommended for detection of laeverin of human and rat 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).

laeverin (G-14) is also recommended for detection of laeverin in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for laeverin siRNA (h): sc-91662, laeverin shRNA Plasmid (h): sc-91662-SH and laeverin shRNA (h) Lentiviral Particles: sc-91662-V.

Molecular Weight of laeverin: 120 kDa.

Molecular Weight of glycosylated laeverin: 160 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.

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.