BACKGROUND

The UNC5H family of proteins act as transmembrane receptors for netrin-1 and play a crucial role in axon guidance and migration of neural cells. In fact, UNC5H receptors express widely in cells that migrate, where they bind the G protein $G_{i-2}$ to inhibit G protein signaling. Additionally, UNC5H receptors induce apoptosis when cleaved by a caspase, producing an intracellular fragment containing a death domain, but this activity is blocked by the binding of netrin-1. The expression of UNC5H receptors is downregulated in multiple cancers, including colorectal, breast, ovary, uterus, stomach, lung and kidney cancers. Hence, in the absence of netrin-1, UNC5H receptors act as tumor suppressors by inhibiting anchorage-independent growth and invas ion, but mutation of these receptors provides a potential mechanism for tumorigenicity. UNC5H2, also designated UNC-5 homolog B or p53-regulated receptor for death and life protein 1 (p53RDL1) is highly expressed in brain with lower levels of expression observed in developing lung, cartilage, kidney and hematopoietic and immune tissues.

REFERENCES


SOURCE

UNC5H2 (R-2) is a mouse monoclonal antibody raised against full length recombinant Unc5H2 of rat origin.

PRODUCT

Each vial contains 100 µg IgG2a in 1.0 ml PBS with < 0.1% sodium azide and protein stabilizer.

APPLICATIONS

UNC5H2 (R-2) is recommended for detection of UNC5H2 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Unc5H1.

Molecular Weight of UNC5H2: 100 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

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.