

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human FLRT1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) FLRT2 or rhFLRT3 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 357721
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human FLRT1 Ile21-Pro524 Accession # Q9NZU1
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

FLRT1 is one of three FLRT (fibronectin, leucine rich repeat, transmembrane) glycoproteins expressed in distinct areas of the developing brain and other tissues (1, 2). The 90 kDa type I transmembrane (TM) human FLRT1 is synthesized as a 646 amino acid (aa) precursor with a 20 aa signal sequence, a 504 aa extracellular domain (ECD), a 21 aa TM segment and a 101 aa cytoplasmic region. The ECD contains 10 N-terminal leucine-rich repeats flanked by cysteine-rich areas, and a juxtamembrane fibronectin type III domain (1). The human FLRT1 ECD shares 97% aa sequence identity with mouse, rat, and canine, and 95% with bovine FLRT1 ECD. Human FLRT2 and FLRT3 ECDs share 47% and 61% aa identity, respectively, with FLRT1. The fibronectin domain of all three FLRTs can bind FGF receptors (2). This binding is thought to regulate FGF signaling during development (2, 3). The LRR domains are responsible for both the localization of FLRTs in areas of cell contact and homotypic cell-cell association (4). This may be through direct interactions with other FLRT molecules or, as has been shown for FLRT3, by regulating internalization of adhesion molecules such as cadherins (4, 5). Both during development and in adulthood, FLRT1 mRNA is predominantly expressed in brain and kidney (1). FLRT1 is expressed at brain compartmental boundaries in mouse embryos (2). Its expression is distinct from that of FLRT2 and FLRT3 (2).

PRODUCT SPECIFIC NOTICES

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