

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Layilin in ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 328002
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Layilin Ala22-Glu220 Accession # NP_849156
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	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

Layilin (named after the L-A-Y-I-L-I six amino acid motif in the molecule's transmembrane segment) is a 55 kDa member of the animal C-type lectin family. The human Layilin cDNA encodes a 374 amino acid (aa) type I transmembrane protein that, based on the orthologous molecule in hamster, contains a 19 aa signal sequence, a 201 aa extracellular region, a 31 aa transmembrane segment, and a 123 aa cytoplasmic tail (1, 2). The extracellular domain has a 130 aa carbohydrate recognition domain that contains only one potential Ca⁺⁺-binding site. The intracellular region contains three types of LH (layilin homology) repeats. There are three 16-18 aa LH1 repeats, 3 five aa (E-G-S-F/W-V) LH2 repeats, and 2 four aa (N-D/E-I-Y) LH3 repeats. Adjacent LH2-LH3 tandem arrays provide docking sites for talin, a cytoskeleton-membrane adaptor protein (3). The human layilin extracellular region is 85% aa identical to the hamster layilin extracellular region, and 82% aa identical to the extracellular region of a similar molecule identified in mouse. Layilin is known to be a receptor for hyaluronan (HA), a negatively charged linear high molecular weight polysaccharide composed of alternating units of D-glucuronic acid and N-acetyl-D-glucosamine (1, 4, 5). HA is found in the extracellular matrix of most animal tissues and in body fluids. Thus, it may be that layilin modulates cell behavior and functions during tissue remodeling, development, homeostasis, and disease. Layilin binds specifically to HA but not to other glycosaminoglycans (4).

PRODUCT SPECIFIC NOTICES

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