

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human NELL1 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant mouse NELL1 or recombinant human NELL2 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 756465
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human human NELL1 Arg17-Asn810 Accession # Q92832
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

NELL1 (neural EGF-like like protein 1) is an 89 kDa (predicted) member of the EGF-like domain containing family, Laminin G/N-TSP1/Pentraxin gene superfamily of molecules. When secreted, NELL1 exists as a phosphoglycoprotein that can add as much as 50 kDa to the calculated MW. NELL1 has restricted expression, being limited to pre-B cells and osteoblasts, where it apparently promotes osteoblast maturation and bone formation. In tumors, it is found in neuroblastoma-derived cells. NELL1 is both secreted and retained intracellularly where it is phosphorylated by PKC. The human NELL1 precursor is 810 amino acids (aa) in length. It contains a 16 aa signal sequence plus a 794 aa mature region. The mature region possesses an N-terminal TSP domain (aa 81-230), two VWFC domains (aa 271-390), six consecutive EGF-like domains (aa 391-631), and three additional C-terminal VWFC domains (aa 632-807). Secreted NELL1 forms a 400-420 kDa noncovalent homotrimer. Over aa 17-810, human NELL1 shares 93% aa identity with mouse and rat NELL1. Alternate splicing generates an additional isoform of human NELL1 that lacks the fifth EGF-like domain.

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