

DESCRIPTION

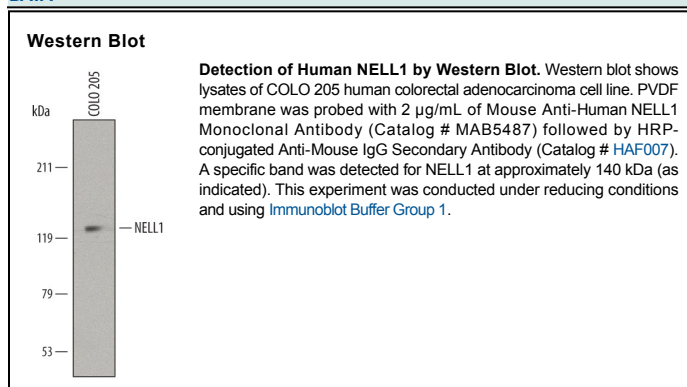
Species Reactivity	Human
Specificity	Detects human NELL1 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant mouse NELL1 or recombinant human NELL2 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 756465
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human human NELL1 Arg17-Asn810 Accession # Q92832
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.