# Human NELL1 Alexa Fluor® 647-conjugated Antibody

Monoclonal Mouse $IgG_{2B}$ Clone # 756465

Catalog Number: FAB5487R

100 µg

## DESCRIPTION

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| **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<br>Arg17-Asn810<br>Accession # Q92832 |
| **Conjugate** | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 nm |
| **Formulation** | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.*

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

## PREPARATION AND STORAGE

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| **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.

## PRODUCT SPECIFIC NOTICES

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