Human NOD1 Antibody

Monoclonal Mouse IgG_{2B} Clone # 626919

Catalog Number: MAB7090

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human NOD1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human NOD2 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 626919
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human NOD1 Lys830-Phe953 Accession # Q9Y239
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 either lyophilized or as a 0.2 μm filtered solution in PBS.

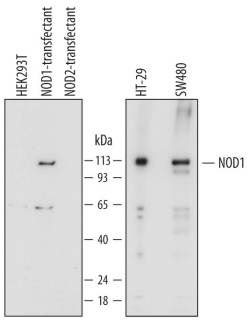
APPLICATIONS

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	1 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below

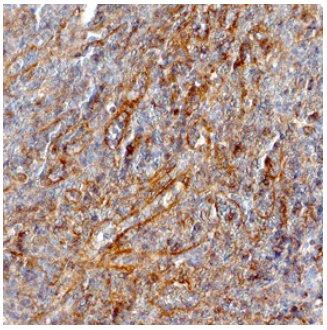
DATA

Western Blot



Detection of Human NOD1 by Western Blot. Western blot shows lysates of HEK293T human embryonic kidney cell line either mock transfected or transfected with human NOD1 or human NOD2, HT-29 human colon adenocarcinoma cell line, and SW480 human colorectal adenocarcinoma cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human NOD1 Monoclonal Antibody (Catalog # MAB7090) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for NOD1 at approximately 110 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

Immunohistochemistry



NOD1 in Human Spleen. NOD1 was detected in immersion fixed paraffin-embedded sections of human spleen using Mouse Anti-Human NOD1 Monoclonal Antibody (Catalog # MAB7090) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in splenocytes. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

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.** ● 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

NOD1, also called CARD4, is a 108 kDa intracellular pattern recognition receptor of the Nod-like receptor (NLR or Caterpiller) family. This innate immune receptor recognizes the muramyl peptide, diaminopimelic acid. The 953 amino acid (aa) NOD1 contains a caspase recognition domain (CARD), an NTPase domain and 10 leucine-rich repeats (LRR). Splicing variants of 925 and 779 aa lack all or part of LRR 7-10 and do not respond to muramyl peptides. Polymorphisms of NOD1 are associated with inflammatory bowel disease. Within aa 830-953 (LRR 7-110), human NOD1 shares 82% and 84% aa identity with mouse and rat NOD1, respectively.

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