

DESCRIPTION

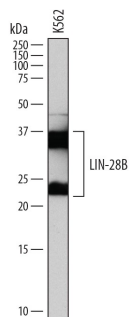
Species Reactivity	Human
Specificity	Detects human LIN-28B in direct ELISAs and Western blots. In direct ELISAs, less than 4% cross-reactivity with recombinant human LIN-28A is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human LIN-28B Val83-Thr250 Accession # Q6ZN17
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	0.5 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human LIN-28B by Western Blot. Western blot shows lysates of K562 human chronic myelogenous leukemia cell line. PVDF membrane was probed with 0.5 µg/mL of Sheep Anti-Human LIN-28B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7726) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). Specific bands were detected for LIN-28B at approximately 22 and 35-37 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunohistochemistry</p>  <p>LIN-28B in Human Liver. LIN-28B was detected in immersion fixed paraffin-embedded sections of human liver using Sheep Anti-Human LIN-28B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7726) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in hepatocytes. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 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

Lin-28B (Lineage protein 28 homolog B) is a 35-37 kDa member of the Lin28 family of proteins. Although there is an accompanying Lin-28/28A molecule, Lin-28 and Lin-28B are not alternative splice forms but represent products of separate genes. Lin-28B is found in both the cytoplasm and nucleus of fetal hematopoietic stem and progenitor cells, embryonic liver and multiple tumor types. It is considered a regulator of miRNA activity. Active miRNAs arise from transcribed RNAs that are first cleaved by nuclear RNase III, next cleaved by cytoplasmic Dicer, and finally associate with Argonaute to generate a RISC RNA silencing complex. Lin-28A participates in the cytoplasmic uridylation of miRNAs on their 3'-end, blocking Dicer processing and initiating RNA degradation. Lin-28B, by contrast, acts in the nucleus and blocks the initial RNase III cleavage step. Human Lin-28B is 250 amino acids (aa) in length (SwissProt # Q6ZN17). It contains one CSD/cold shock domain (aa 29-102) plus two CCHC-type Zn-finger RNA binding domains (aa 127-144 and 149-166). Phosphorylation is known to occur on Ser105. There is one reported alternate start site at Met71, and there is a potential 11 aa substitution for aa 1-4. Two isoforms of LIN28B with apparent MWs of 22 kDa and 37 kDa have been reported. Over aa 83-250, human Lin-28B shares 84% aa sequence identity with mouse Lin-28B.