

DESCRIPTION

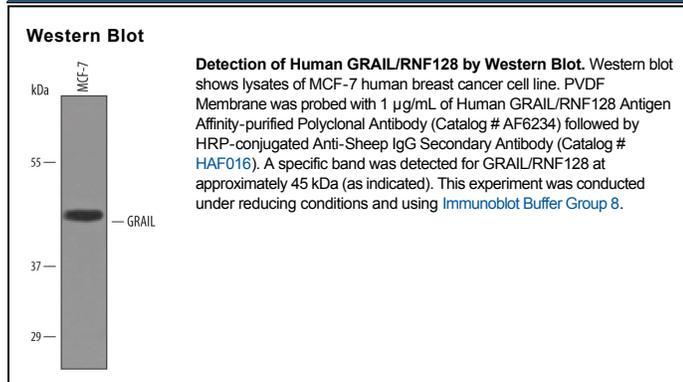
Species Reactivity	Human
Specificity	Detects human GRAIL/RNF128 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human GRAIL/RNF128 Val42-Pro161 Accession # Q8TEB7
Formulation	Lyophilized from a 0.2 µm 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	1 µg/mL	See Below

DATA



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

GRAIL (Gene related to anergy in lymphocytes protein; also RNF128) is a 45-47 kDa, type I transmembrane E3 ubiquitin ligase. It is expressed in the endosomes of select cell types such as early myeloid progenitors and lymphocytes, and mediates the ubiquitination of membrane proteins such as CD3, CD40L, and CD83, plus the tetraspanins CD81 and CD151. GRAIL apparently regulates the threshold for T cell activation, and as such, plays a key role in autoimmunity. In Treg cells, GRAIL promotes suppressive activity by restricting Th17 gene expression. Mature human GRAIL is 390 amino acids (aa) in length (aa 39-428). It possesses a 169 aa luminal region (aa 39-207) and a 190 aa cytoplasmic domain. The luminal region contains one PA (protease-associated) domain that mediates protein-protein interactions (aa 48-193), and the cytoplasmic segment shows one zinc-finger region (aa 277-318). There is one splice variant that shows a 134 aa substitution for aa 1-161. Over aa 42-161, human GRAIL shares 98% aa identity with mouse GRAIL.