

DESCRIPTION

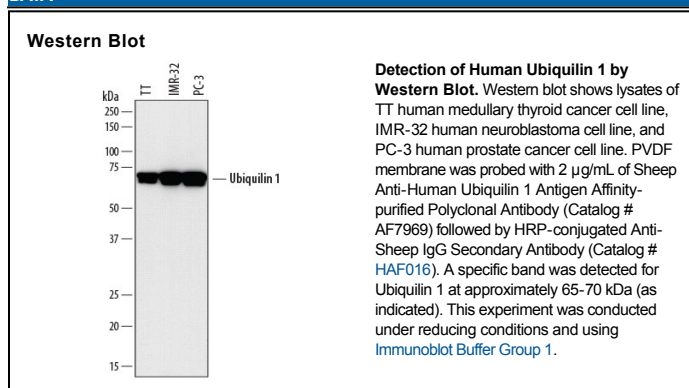
Species Reactivity	Human
Specificity	Detects human Ubiquilin 1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Ubiquilin 1 Arg546-Gly585 Accession # Q9UMX0
Formulation	Lyophilized from a 0.2 µm 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 0.2 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

Ubiquilin-1 (also known as DA41 and PLIC-1/Protein Linking IAP with Cytoskeleton 1) is a 62-70 kDa intracellular member of the UBL-UBA family of proteins. Consistent with its name, it ubiquitously expressed, and is particularly prominent in skeletal muscle and neurons. Multiple functions have been attributed to ubiquilin-1. For instance, it is now known to be a key player in APP processing. On the cleavage side, ubiquilin-1 binds to PS/presenilin, a component of the γ-secretase complex that cleaves APP. Ubiquilin-1 appears to target both ubiquitinated single chain PS to the proteasome, and aggregated PS to the aggresome. With respect to APP, ubiquilin-1 serves as a molecular chaperone, binding to and inhibiting APP aggregation. On cells expressing CD47, Ubiquilin-1 acts as an intermediary between integrins, the cytoskeleton and CD47, promoting cell spreading. And in neurons, ubiquilin-1 stabilizes both membrane and GABA subunit stability, enhancing inhibitory synaptic transmission. Human ubiquilin-1 is 589 amino acids (aa) in length. It contains one ubiquitin-like domain (aa 37-111), an S5a binding site (aa 72-105) and a UBA binding region (aa 548-585). There are multiple splice variants, ranging from 19-59 kDa in size. One shows a deletion of aa 418-445, a second contains a three aa substitution for aa 151-589, a third possesses a 29 aa substitution for aa 112-589, and a fourth shows a deletion of aa 61-237 coupled to a second deletion of aa 361-589. Over aa 546-585, human and mouse ubiquilin-1 are identical in amino acid sequence.