

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Ubiquilin 1 in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Ubiquilin 1 Arg546-Gly585 Accession # Q9UMX0
<b>Conjugate</b>	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
<b>Formulation</b>	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*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.

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

## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

## 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 proteosome, 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.

## PRODUCT SPECIFIC NOTICES

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