Human Ubiquilin 1 Alexa Fluor® 750-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7969S
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Ubiquilin 1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Ubiquilin 1 Arg546-Gly585 Accession # Q9UMX0
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	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

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	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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