

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Clathrin Heavy Chain 1/CHC17 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human CHC-22 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Clathrin Heavy Chain 1/CHC17 Trp1521-Met1675 Accession # Q00610
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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.
Immunocytochemistry	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

Clathrin Heavy Chain 1/CHC17 (clathrin heavy chain 17; also CHC, CLTCL2 and CLTC) is a 170-180 kDa member of the clathrin heavy chain family of molecules. It is widely expressed, and serves at least two functions. First, it interacts with TACC3 and chTOG to form a complex that crosslinks microtubules making up K-fibers, and second, three Clathrin Heavy Chain 1/CHC17 molecules form a triskelion (Greek for "3 legged") structure with three clathrin light chains to create the polyhedral coat of coated pits. Human Clathrin Heavy Chain 1/CHC17 is 1675 amino acids (aa) in length. It contains an N-terminal domain that mediates protein-protein interactions (aa 2-479), a flexible linker region (aa 480-523), a distal segment (aa 524-638), a proximal region that interacts noncovalently with one CHC light chain (aa 639-1549), and a trimerization domain that mediates the formation of a noncovalent triskelion structure (aa 1550-1675). Although the predicted MW of Clathrin Heavy Chain 1/CHC17 is 191 kDa, it runs anomalously at 180 kDa in SDS-PAGE. Multiple utilized phosphorylation and acetylation sites exist. There are multiple potential splice forms. One shows a four aa insertion after Lys83, a second shows a seven aa insertion after Asp1611, and a third contains a four aa substitution for aa 1636-1675. Over aa 1521-1675, human and mouse Clathrin Heavy Chain 1/CHC17 are identical in aa sequence.

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