

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human COMMD1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) Attractin or rhCaspr1 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 762203
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human COMMD1 Ser37-Ser135 Accession # Q8N668
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.
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

COMMD1, also known as MURR1 and the copper toxicosis gene product, is a ubiquitously expressed 21 kDa copper binding protein. It contains an N-terminal domain (aa 1-121) and C-terminal domain (aa 125-190) which are separated by a protease sensitive site. It forms high molecular weight oligomeric complexes both in solution and in association with phospholipid membranes. COMMD1 is found in the nucleus and cytoplasm as well as in endocytic vesicle membrane fractions. It binds and regulates the activity of a variety of proteins including the copper transporter Wilson disease protein (ATP7B), the delta ENaC epithelial cell sodium channel, the cystic fibrosis transmembrane regulator (CFTR), superoxide dismutase 1 (SOD1), XIAP, HIF-1 alpha, and Cullin RING ubiquitin ligases. COMMD1 promotes the ubiquitination and degradation of the RelA subunit of NFκB, thereby inhibiting its chromatin association and nuclear targeting as well as the replication of HIV in resting T cells. Within aa 37-135, human COMMD1 shares 94% aa sequence identity with mouse and rat COMMD1.

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