

CIAO1 (D4E2U) Rabbit mAb

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Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 41	Source/Isotype: Rabbit IgG	UniProt ID: #O76071	Entrez-Gene Id: 9391
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

CIAO1 (D4E2U) Rabbit mAb recognizes endogenous levels of total CIAO1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Phe292 of human CIAO1 protein.

Background

Iron-sulfur (Fe-S) clusters (ISC) are cofactors for many proteins that display a wide range of biological functions, such as DNA maintenance, transcription, translation, cellular metabolism, electron transport, and oxidative phosphorylation (1). While structurally simple, the synthesis and insertion of ISC into Fe-S proteins are complex processes that involve many different proteins. The cytosolic iron-sulfur assembly component 1 (CIAO1) protein is a key component of the cytosolic ISC assembly machinery that incorporates ISC into cytoplasmic and nuclear Fe-S proteins in eukaryotic cells (1,2). CIAO1, along with MMS19, XPD, FAM96B, and ANT2, comprise a complex that localizes to the mitotic spindle during mitosis, which suggests a role in chromosome segregation (3-6). The CIAO1 protein interacts with Wilms' tumor suppressor protein (WT1) and may affect its transactivation activity (7).

Background References

1. Wang, J. and Pantopoulos, K. (2011) *Biochem J* 434, 365-81.
2. Stehling, O. et al. (2013) *Cell Metab* 18, 187-98.
3. Ito, S. et al. (2010) *Mol Cell* 39, 632-40.
4. Gari, K. et al. (2012) *Science* 337, 243-5.
5. Stehling, O. et al. (2012) *Science* 337, 195-9.
6. Seki, M. et al. (2013) *J Biol Chem* 288, 16680-9.
7. Johnstone, R.W. et al. (1998) *J Biol Chem* 273, 10880-7.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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