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# CIAO1 (D4E2U) Rabbit mAb

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New 05/15

**For Research Use Only. Not For Use In Diagnostic Procedures.**

Applications W Endogenous	Species Cross-Reactivity* H, M, R	Molecular Wt. 41 kDa	Isotype Rabbit IgG**
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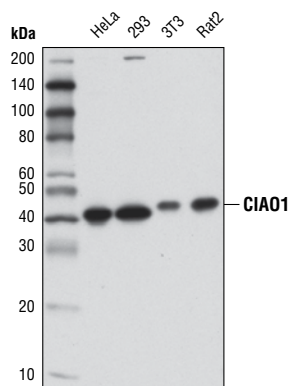
**Background:** Iron-sulfur (Fe-S) clusters (ISC) are cofactors for many proteins that display a wide range of biological functions, such as DNA maintenance, transcription, translation, cellular metabolism, electron transport, and oxidative phosphorylation (1). While structurally simple, the synthesis 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).

**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 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.



Western blot analysis of extracts from various cell lines using CIAO1 (D4E2U) Rabbit mAb.

**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.

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western blotting 1:1000

For product specific protocols and a complete listing of recommended companion products please see the product web page at [www.cellsignal.com](http://www.cellsignal.com)

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

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.