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Tox Antibody

#99036

Cell Signaling
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New 08/19

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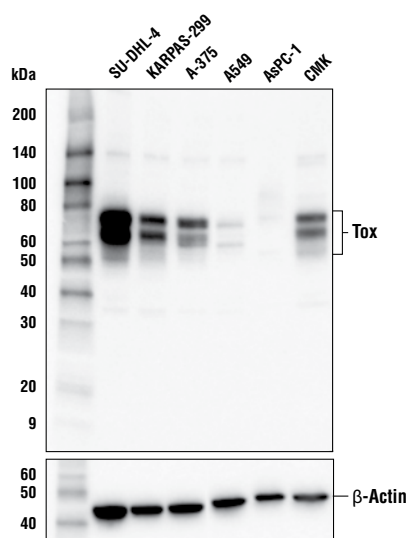
Applications W, IP Endogenous	Species Cross-Reactivity* H	Molecular Wt. 60-80 kDa	Source Rabbit**
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Background: Thymocyte selection-associated high mobility group box protein (Tox) is a DNA-binding nuclear factor and member of the evolutionarily conserved high-motility group (HMG)-box superfamily. Tox also defines a small subfamily of proteins that include Tox2, Tox3, and Tox4, all of which are highly conserved in vertebrate species but have unique tissue expression patterns and functions (1,2).

Tox plays a key role in T cell development in the thymus during positive selection (3-5). A study in Tox-deficient mice also revealed a requirement for Tox in CD4 T cell and NK cell lineage development, including NKT cells, FoxP3+ T regulatory T cells, and lymphoid tissue-inducer (LTi) cells (6-8). Although Tox expression is primarily restricted to developing immune cells in normal tissues, Tox is induced by high antigen stimulation during chronic viral infection or cancer, regulating T cell persistence and exhaustion (9-12). Tox has also been shown to be aberrantly expressed in cutaneous T cell lymphomas (13-14).

Specificity/Sensitivity: Tox Antibody recognizes endogenous levels of total Tox protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala387 of human Tox protein.



Western blot analysis of extracts from various cell lines using Tox Antibody (upper) and β -Actin (D6A8) Rabbit mAb #8457 (lower).

KARPAS cell line source: Dr. Abraham Karpas at the University of Cambridge.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/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

Immunoprecipitation 1:50

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

Background References:

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- (2) Aliahmad, P. et al. (2012) *Curr Opin Immunol* 24, 173-7.
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- (6) Aliahmad, P. and Kaye, J. (2008) *J Exp Med* 205, 245-56.
- (7) Aliahmad, P. et al. (2010) *Nat Immunol* 11, 945-52.
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- (10) Alfei, F. et al. (2019) *Nature* 571, 265-9.
- (11) Yao, C. et al. (2019) *Nat Immunol* 20, 890-901.
- (12) Wang, X. et al. (2019) *J Hepatol* pii: S0168-8278(19)30301-0. doi: 10.1016/j.jhep.2019.05.015.
- (13) Morimura, S. et al. (2014) *Arch Dermatol Res* 306, 843-9.
- (14) Huang, Y. et al. (2014) *Oncotarget* 5, 4418-25.

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

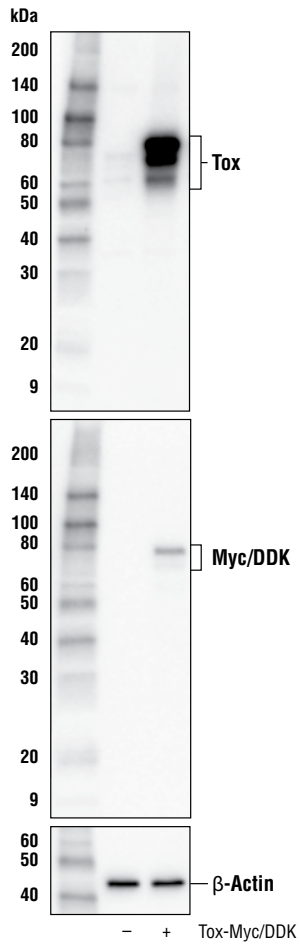
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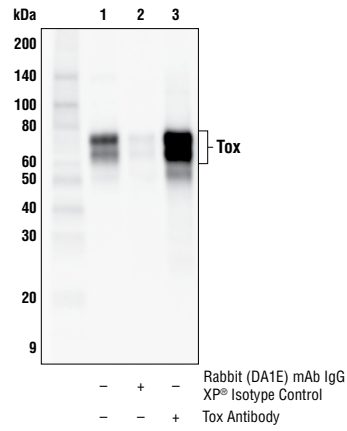
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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken 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.



Western blot analysis of extracts from 293T cells, mock transfected (-) or transfected with a construct expressing Myc/DDK-tagged full-length human Tox protein (hTox-Myc/DDK; +), using Tox Antibody (upper), Myc-Tag (71D10) Rabbit mAb #2278 (middle), and β -Actin (D6A8) Rabbit mAb #8457 (lower).



Immunoprecipitation of Tox protein from SU-DHL-4 cell extracts. Lane 1 is 10% input, lane 2 is Rabbit (DA1E) mAb IgG XP[®] Isotype Control #3900, and lane 3 is Tox Antibody. Western blot analysis was performed using Tox Antibody.

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