

Tox Antibody

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	60-80	Rabbit	#O94900	9760

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

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

Tox Antibody recognizes endogenous levels of total Tox protein.

Source / Purification

Polyclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala387 of human Tox protein. Antibodies are purified by peptide affinity chromatography.

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).

Background References

1. O'Flaherty, E. and Kaye, J. (2003) *BMC Genomics* 4, 13.
2. Aliahmad, P. et al. (2012) *Curr Opin Immunol* 24, 173-7.
3. Wilkinson, B. et al. (2002) *Nat Immunol* 3, 272-80.
4. Aliahmad, P. et al. (2004) *J Exp Med* 199, 1089-99.
5. Chi, T.H. et al. (2002) *Nature* 418, 195-9.
6. Aliahmad, P. and Kaye, J. (2008) *J Exp Med* 205, 245-56.
7. Aliahmad, P. et al. (2010) *Nat Immunol* 11, 945-52.
8. Yun, S. et al. (2011) *Immunol Lett* 136, 29-36.
9. Page, N. et al. (2018) *Immunity* 48, 937-950.e8.
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.

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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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