

L-Tryptophan Antibody – Mouse Monoclonal

Ref: IS011

The anti-Tryptophan antibody IS011 is a mouse monoclonal antibody optimized to ensure high affinity and specificity. Combined with the [STAINperfect immunostaining kit A](#), this antibody allows direct L-Tryptophan visualization in whole mounts, cell cultures, and tissue sections.

Clonality	Monoclonal antibody (clone 4H11-A11)
Host	Mouse
Reactivity	Reacts with all species
Eligible samples	Whole mounts, cell cultures, tissue sections
Staining procedure	STAINperfect immunostaining kit A
Format	50µL (approx. 40 tissue sections)

INFORMATIONS

Product overview

Product name	L-Tryptophan antibody
Synonyms	Anti-L-Trp antibody (S)-2-Amino-3-(3-indolyl)propionic acid antibody L-alpha-Amino-3-indolepropionic acid antibody (S)-2-Amino-3-(3-indolyl)propanoic acid antibody L-alpha-Amino-3-indolepropanoic acid antibody
Immunogen	Conjugated L-Tryptophan
Isotype	IgG1 k chain
Specificity	When tested in competitive ELISA, the anti-conjugated L-Tryptophan antibody did not show any significant cross reactivity with Tryptophan analogs, including Tryptamine
Volume	50µL

Storage

Form	Liquid
Purity	Purified IgG
Storage	Store at +4°C for short term (1-2 months). Aliquot and store at -20°C for long term. Avoid repeated freeze / thaw cycles
Material safety datasheet	Download MSDS

PROTOCOLS

IF - Cell cultures, Whole mounts, Tissue sections

Dilute antibody with the antibody diluent provided in the [STAINperfect immunostaining kit A](#). Use at 1/250 -1/1000 dilution. Follow the STAINperfect protocol suited to your sample

Comments

Optimal working dilutions must be determined by the end-user

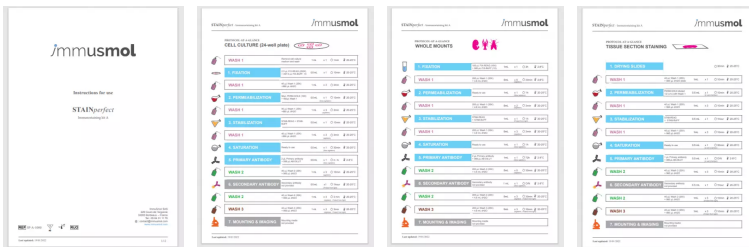
Restrictions

For research use only

Full protocol

[Download STAINperfect protocol for dopamine staining](#)

Protocols-at-a-glance



[Complete Instructions for Use](#)

[Protocol-at-a-glance for cell cultures](#)

[Protocol-at-a-glance for whole mounts](#)

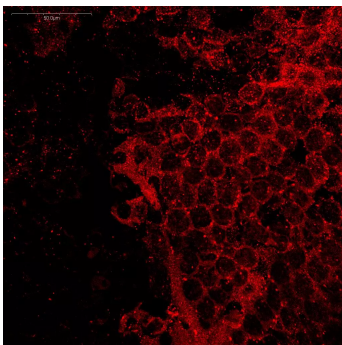
[Protocol-at-a-glance for tissue sections](#)

REFERENCES

Selected articles on L-Tryptophan:

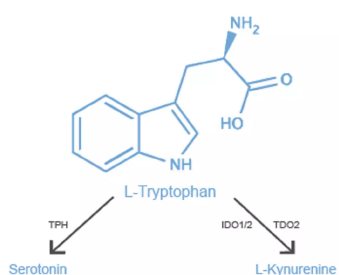
- [Berthon C, Fontenay M, Corm S, Briche I, Allorge D, Hennart B, Lhermitte M, Quesnel B. Metabolites of tryptophan catabolism are elevated in sera of patients with myelodysplastic syndromes and inhibit hematopoietic progenitor amplification. Leuk Res. 2013 May;37\(5\):573-9. doi: 10.1016/j.leukres.2013.02.001. Epub 2013 Feb 28.](#)
- [Schwarcz R, Bruno JP, Muchowski PJ, Wu HQ. Kynurenines in the mammalian brain: when physiology meets pathology. Nat Rev Neurosci. 2012 Jul;13\(7\):465-77. doi: 10.1038/nrn3257.](#)
- [Pilotte L, Larrieu P, Stroobant V, Colau D, Dolusic E, Frédérick R, De Plaen E, Uyttenhove C, Wouters J, Masereel B, Van den Eynde BJ. Reversal of tumoral immune resistance by inhibition of tryptophan 2,3-dioxygenase. Proc Natl Acad Sci U S A. 2012 Feb 14;109\(7\):2497-502. doi: 10.1073/pnas.1113873109. Epub 2012 Jan 30.](#)
- [Hoshi M, Matsumoto K, Ito H, Ohtaki H, Arioka Y, Osawa Y, Yamamoto Y, Matsunami H, Hara A, Seishima M, Saito K. L-tryptophan-kynurenine pathway metabolites regulate type I IFNs of acute viral myocarditis in mice. J Immunol. 2012 Apr 15;188\(8\):3980-7. doi: 10.4049/jimmunol.1100997. Epub 2012 Mar 14.](#)

Product pictures



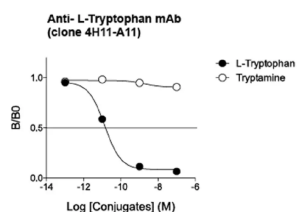
Tryptophan detection in the crayfish brain

Anti-Tryptophan antibody demonstrates the presence of Tryptophan positive cells in the brain of a crayfish. Staining was obtained with mouse monoclonal anti-Tryptophan antibody (IS011) and performed with STAINperfect immunostaining kit A, following the protocol for whole mount samples. Fluorescent conjugated secondary antibody was used and images obtained by confocal imaging at high magnification (x40).



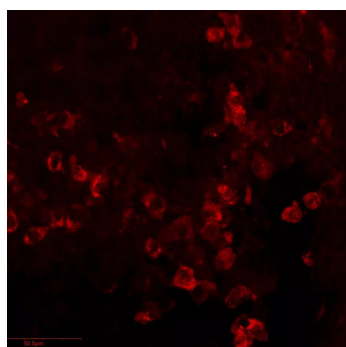
Amino acid L-Tryptophan

L-Tryptophan is an essential amino acid, which is converted into Serotonin by tryptophan hydroxylase (TPH) in the gut or brain, or catabolized by various cell types into L-Kynurenine through indoleamine 2,3-dioxygenase (IDO1/2) or tryptophan 2,3-dioxygenase (TDO2). Abnormal tryptophan metabolism is implicated in a wide range of pathological states, including metabolic and auto-immune diseases, cancer, viral infections, as well as neurodegenerative and mood disorders.



Affinity & specificity of anti- L-Tryptophan antibody

Competitive ELISA demonstrates that low amounts of L-Tryptophan conjugate are required to abolish antigen-antibody reaction (high affinity), while rising concentrations of L-Tryptophan analog tryptamine do not affect reaction (high specificity).



Tryptophan immunostaining in the CNS of embryonic mouse

Using STAINperfect immunostaining kit A, Tryptophan was detected in the hindbrain of embryonic mouse E15.5. Staining was obtained following the protocol optimized for whole mount using IS011 mouse monoclonal antibody targeting L-Tryptophan. Fluorescent conjugated secondary antibodies were then used and images captured by confocal microscopy at high magnification.

Contact information

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To order, review, ask for technical support, visit product page at:

<https://www.immusmol.com/shop/l-tryptophan-mab/>