Dopamine rabbit pAb – IS1005

Ref: IS1005-sp

The anti-dopamine antibody IS1005 is a rabbit polyclonal antibody developped to ensure superior affinity and specificity. Combined with the STAINperfect immunostaining kit A, the antibody allows direct dopamine visualization in whole mounts, cell culture and tissue sections.

Clonality	Polyclonal antibody
Host	Rabbit
Reactivity	Reacts with all species
Tested samples	Whole mounts, cell culture, tissue sections
Staining procedure	STAINperfect immunostaining kit A
References	5 citations
Format	50µl (approx. 40 tissue sections)

INFORMATIONS

Product overview

Product name	Dopamine antibody – Rabbit pAb
Synonyms	Anti-Dopamine antibody Anti-3,4-dihydroxyphenethylamine antibody Anti-DA antibody Anti-hydroxytyramine antibody Anti-oxytyramine
Immunogen	Conjugated Dopamine
Specificity	When tested in competitive ELISA, the anti-conjugated Dopamine antibody did not show any significant cross reactivity with Tyramine and L-Dopa conjugates
Volume	50µl

Storage

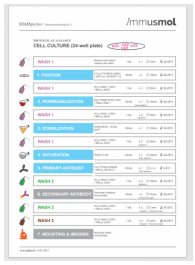
Form	Liquid
Purity	Purified anti-serum
Storage	Store at +4°C for short term (1-2 months). Aliquot and store at -20°C for long term. Avoid repeated freeze / thaw cycles
Material safety datasheet	Download MSDS

PROTOCOLS

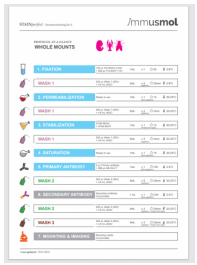
IF – Cell cultures, Whole mounts, Tissue sections	Dilute antibody with the antibody diluent provided in the STAINperfect immunostaining kit A. Use at 1/250 -1/1000 dilution. Follow the STAINperfect protocol suited to your sample
Comments	Optimal working dilutions must be determined by the end-user
Restrictions	For research use only
Full protocol	Download STAINperfect protocol for dopamine staining

Protocols-at-a-glance

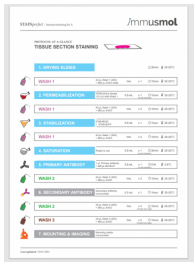
Complete Instructions for Use



Protocol-at-a-glance for cell cultures



Protocol-at-a-glance for whole mounts



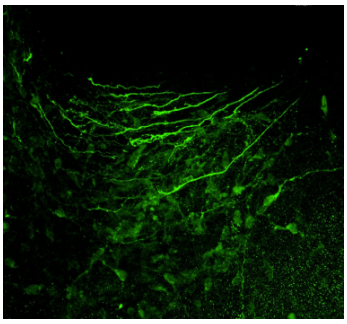
Protocol-at-a-glance for tissue sections

REFERENCES

Product citation

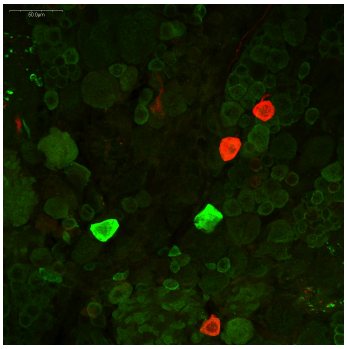
- Zhang et al. Apoptosis signal regulating kinase 1 deletion mitigates α-synuclein pre-formed fibril propagation in mice. 2020 January.
- Smits et al. Modeling Parkinson's disease in midbrain-like organoids. Nature, Parkinson's Disease . 2019 April 05.
- Smits et al. Single-cell transcriptomics reveals multiple neuronal cell types in human midbrain-specific organoids. bioRxiv. 2019 March 28.
- DeGregorio et al. miR-34b/c Regulates Wnt1 and Enhances Mesencephalic Dopaminergic Neuron Differentiation. Stem Cell Reports. 2018 Apr 10.
- Monzel et al. Derivation of Human Midbrain-Specific Organoids from Neuroepithelial Stem Cells. Stem Cell Reports. 2017 May 9

Product pictures



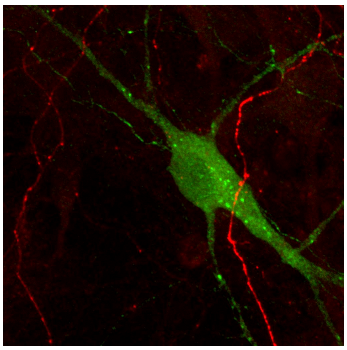
Dopamine imaging in mouse embryonic mesencephalic neurons (E13.5)

Using STAINperfect immunostaining kit A, Dopamine (green) was detected within mouse embryonic mesencephalic neurons (E13.5) following the protocol optimized for whole mount samples. Stainings were performed using ImmuSmol rabbit anti-Dopamine polyclonal Ab (IS1005) and standard mouse anti-TH antibody. Fluorescent conjugated antibodies were used and images acquired by confocal imaging.



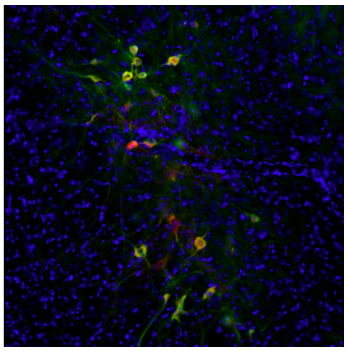
Dopaminergic and serotoninergic neurons in crayfish brain

Immunostaining of dopaminergic and serotoninergic brain neurons of a crayfish. Staining was performed with STAINperfect immunostaining kit A, following the protocol for whole mount samples. Fluorescent secondary antibodies were used and pictures were acquired by confocal imaging with high magnification.



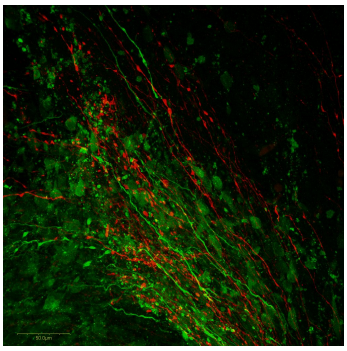
Immunostaining of Dopamine and Serotonin immunostaining in mouse culture of primary midbrain neurons

Dopamine and Serotonin were stained in mouse culture of primary midbrain neurons using STAINperfect immunostaining kit A. Staining were obtained following the protocol optimized for cell culture using IS1005 rabbit polyclonal antibody against Dopamine and IS0135 goat polyclonal antibody against Serotonin. Fluorescent conjugated secondary antibodies were then used and imaged by confocal imaging.



Dopaminergic neurons of the Substantia Nigra pars compacta (SNc) in coronal rat brain sections

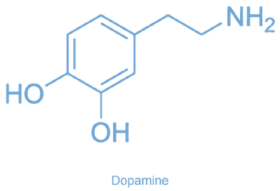
Revealed by anti-dopamine (DA, rabbit polyclonal antibody #IS1005) and Tyrosine Hydroxylase (TH, #MAB5280, reference catecholaminergic neuron immunostaining). As highlighted in the overlay, DA immunoreactivity well correlates with TH immunoreactivity in the SNc, thus showing that our antibody against the DA neurotransmitter - used with the STAINperfect immunostaining kit A – is a validated tool to directly highlight DAergic systems rather than through biosynthesis enzyme immunostaining, expressed in all catecholaminergic cell populations.



Dopamine and Serotonin immunostaining in the CNS of embryonic mouse

Using STAINperfect immunostaining kit A, Dopamine (green) and Serotonin (red) were stained in the CNS of embryonic mouse E13.5. Staining were obtained following the protocol optimized for whole mount using IS1005 rabbit polyclonal antibody against Dopamine and IS0135 goat polyclonal antibody against Serotonin. Fluorescent conjugated secondary antibodies were then used and images captured by confocal microscopy at high magnification.

Dopamine (3,4-dihydroxyphenethylamine)



Dopamine

Dopamine (DA) is a catecholamine neurotransmitter and hormone synthesized from L-DOPA. Playing a key role in motor, motivational and cognitive functions, brain dopaminergic systems are found to be altered in a number of pathological states, including Parkinson's disease, attention deficit hyperactivity disorder (ADHD), drug addictions, pain and behavioral disorders. At the peripheral level, dopamine is an important regulator of blood flow, which also exerts paracrine and exocrine effects on immune cells, renal proximal tubular cells and as well as pancreatic cells.

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

https://www.immusmol.com/shop/dopamine-polyclonal-antibody-bundle/