

# Agrisera

This product is for research use only (not for diagnostic or therapeutic use)

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Product no **AS13 2718**

**ASyO5 | Mouse anti-human alpha-synuclein | oligomer-specific (clone number 2.4)**

## Product information

<b>Background</b>	<b>Alpha-synuclein</b> is normally an unstructured soluble protein that can aggregate to form insoluble fibrils in pathological conditions characterized by Lewy bodies, such as Parkinson's disease, dementia with Lewy-bodies, and multiple system atrophy. In analogy to many other amyloid associated disorders, alpha-synuclein may also form oligomeric assemblies. These small and soluble forms have been suggested to exert a stronger tissue damaging effect as compared to the monomeric and fibrillar counterpart. Using a recently developed technique a monoclonal oligomer-specific antibody has been designed.
<b>Immunogen</b>	synthetic peptide derived from human alpha-synuclein Gly111–Tyr125
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Subclass/isotype</b>	IgG1
<b>Purity</b>	Affinity purified in PBS pH 7.4, no preservatives
<b>Format</b>	Lyophilized
<b>Quantity</b>	50 µg
<b>Reconstitution</b>	For reconstitution add 50 µl of sterile water.
<b>Storage</b>	For short time storage add sodium azide and store at +4 °C. For long time storage store lyophilized/reconstituted at -20 °C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please, remember to spin tubes briefly prior to opening them to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tubes.
<b>Tested applications</b>	Dot blot (Dot), ELISA (ELISA), Immunohistochemistry (IHC)
<b>Related products</b>	<a href="#">AS13 2719</a>   anti-ASyM   Mouse anti-human alpha synuclein N-terminal, monoclonal antibodies <a href="#">AS13 2717B</a>   anti-ASyO2-biotinylated   Mouse anti-human alpha-synuclein   oligomer-specific, monoclonal antibodies <a href="#">AS13 2718B</a>   anti-ASyO5-biotinylated   Mouse anti-human alpha-synuclein   oligomer-specific, monoclonal antibodies <a href="#">AS13 2719B</a>   anti-ASyM-biotinylated   Mouse anti-human alpha synuclein N-terminal, monoclonal antibodies <a href="#">AS08 358</a>   anti-SNCA   Alpha-synuclein, rabbit antibodies  <a href="#">Secondary antibodies</a>
<b>Additional information</b>	This antibody is specific to oligomers in ELISA as a capture antibody. For specific details, please check: <a href="#">Brännström et al. (2014). A Generic Method for Design of Oligomer-Specific Antibodies. PLoS ONE. DOI: 10.1371/journal.pone.0090857.</a>

## Application information

<b>Recommended dilution</b>	1-2 ug/ml (Dot), 2-4 ug/ml (ELISA capture), 10 ug/ml (IHC)
<b>Expected   apparent MW</b>	14 kDa
<b>Confirmed reactivity</b>	Human, mouse
<b>Not reactive in</b>	No confirmed exceptions from predicted reactivity are currently known.
<b>Selected references</b>	<a href="#">Kilpeläinen et al. (2019). Behavioural and dopaminergic changes in double mutated human A30P*A53T alpha-synuclein transgenic mouse model of Parkinson's disease. Sci Rep. 2019 Nov 22;9(1):17382. doi: 10.1038/s41598-019-54034-z.</a> <a href="#">Wu et al. (2017). The critical role of Nramp1 in degrading -synuclein oligomers in microglia under iron overload condition. Neurobiol Dis. 2017 Aug;104:61-72. doi: 10.1016/j.nbd.2017.05.001. (human, mouse, immunolocalization)</a>

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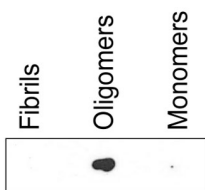
[Svarcbahs et al. \(2016\)](#). Inhibition of Prolyl Oligopeptidase Restores Spontaneous Motor Behavior in the  $\alpha$ -Synuclein Virus Vector-Based Parkinson's Disease Mouse Model by Decreasing  $\alpha$ -Synuclein Oligomeric Species in Mouse Brain. *J Neurosci*. 2016 Dec 7;36(49):12485-12497.

[Brännström et al. \(2014\)](#). A Generic Method for Design of Oligomer-Specific Antibodies. *PLoS ONE*. DOI: 10.1371/journal.pone.0090857.

**For high resolution images, please visit the specific product page at [www.agrisera.com](http://www.agrisera.com)**

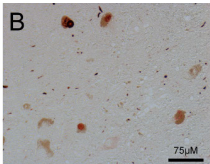
## Application example

### dot blot



Dot blot reaction of the binding capacity of ASyO5 to fibrils, monomers and oligomers. Equal amounts of each sample were spotted on a nitrocellulose membrane and then dried. The membrane was blocked with 5% non-fat milk before incubated for 1 h with anti-ASyO5 (25nM) and then with secondary antibody, anti-mouse HRP-conjugated (1:1500). The membrane was washed with PBS containing 0.25% Tween-20 before detection using ECL prime (GE Healthcare).

### Immunolocalization



Tissue sections from the human PD midbrain, substantia nigra, were de-waxed and rehydrated in ethanol and then incubated with ASyO5 at RT for 1h. The immunoreactivity was detected with the anti-mouse Peroxidase Reagent Kit (ImmPRESS, Vector Laboratories, Inc.) and then developed using the ImmPACT AEC Peroxidase Substrate kit (Vector Laboratories, Inc.).