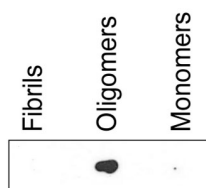


Product no **AS13 2718****Anti-ASyO5 | Mouse anti-human alpha-synuclein | oligomer-specific (clone number 2,4)****Product information**

|                               |                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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>                 | Immunogen affinity purified serum in PBS pH 7.4.                                                                                                                                                                                                                                                                                                                 |
| <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 the tubes briefly prior to opening them to avoid any losses that might occur from material adhering to the cap or sides of the tube. |
| <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**

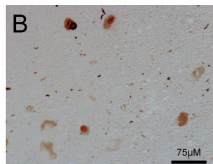
|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Recommended dilution</b>   | 1-2 µg/ml (Dot), 2-4 µg/ml (ELISA capture), 10 µg/ml (IHC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Expected   apparent MW</b> | 14 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Confirmed reactivity</b>   | Human, mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Selected references</b>    | <p><a href="#">Linegrover et al. (2021)</a> Sigma-2 receptor antagonists rescue neuronal dysfunction induced by Parkinson's patient brain-derived a-synuclein. J Neurosci Res. 2021 Apr;99(4):1161-1176. doi: 10.1002/jnr.24782. Epub 2021 Jan 22. PMID: 33480104.</p> <p><a href="#">Kilpeläinen et al. (2019)</a>. 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.</p> <p><a href="#">Wu et al. (2017)</a>. The critical role of Nramp1 in degrading a-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)</p> <p><a href="#">Svarcbahs et al. (2016)</a>. Inhibition of Prolyl Oligopeptidase Restores Spontaneous Motor Behavior in the a-Synuclein Virus Vector-Based Parkinson's Disease Model by Decreasing a-Synuclein Oligomeric Species in Mouse Brain. J Neurosci. 2016 Dec 7;36(49):12485-12497.</p> <p><a href="#">Brännström et al. (2014)</a>. A Generic Method for Design of Oligomer-Specific Antibodies. PLoS ONE. DOI: 10.1371/journal.pone.0090857.</p> |

**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).

Preparation of  $\alpha$ -synuclein oligomers and fibrils is described [here](#).

## 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.).