



# alpha Synuclein

## **Data Sheet**

Catalog Number: CH22139

Product Type: Species Human, Rat, Mouse, Cow, Pig,

Chicken Polyclonal Reactivity: Horse

Immunogen Sequence: Full length recombinant human protein Format: Affinity purified antibody at

expressed in and purified from *E. coli* 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN3

Host:

Chicken

Applications: Immunofluorescence: 1:1,000

Immunohistochemistry: 1:1,000

Western Blot: 1:2,000

Dilutions listed as a recommendation. Optimal dilution should be determined by investigator.

Storage: Antibody can also be aliquotted and stored frozen at -20° C in a manual defrost freezer for six

months without detectable loss of activity. The antibody can be stored at 2° - 8° C for 1 month

without detectable loss of activity. Avoid repeated freeze-thaw cycles.

### **Application Notes**

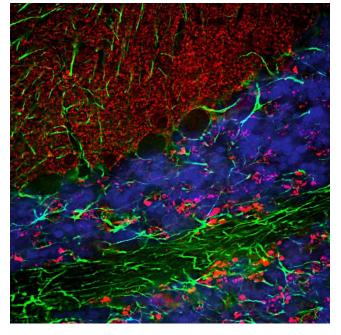
#### Description/Data

 $\alpha$ -synuclein is a member of the synuclein protein family, the other two members being  $\beta$  and  $\gamma$  synuclein, each protein being coded for by a distinct but related gene.  $\alpha$ -synuclein was originally isolated as a major synaptic vesicle associated protein from the electric organ of the fish Torpedo, and direct homologues of  $\alpha$ -synuclein are found in all vertebrates. Later work

connected  $\alpha$ -synuclein expression with several human brain pathologies, so that it is a major component of the Lewy bodies of Parkinson's disease. Point mutations of  $\alpha$ -synuclein proved to be causative of some forms of familial Parkinson's disease.  $\alpha$ -synuclein is also found in the Lewy bodies of patients with diffuse Lewy body disease and inclusions in glial cells in the brains of patients with multiple system atrophy and amyotrophic lateral sclerosis.  $\alpha$ -synuclein is normally heavily expressed in brain and appears to be localized primarily to presynaptic regions, though not with a typical synaptic vesicle distribution pattern.

This antibody recognizes full length human and rodent  $\alpha$ -synuclein specifically both in western blots and in immunocytochemical experiments and is a good marker of synapses on transgenic mice.

Image: Immunofluorescent analysis of a section of rat cerebellum stained with chicken pAb to α-synuclein, CH22139, dilution 1:3,000 in red, and costained with rabbit pAb to GFAP, dilution 1:5,000 in green. The blue is DAPI staining of nuclear DNA.



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