

# **CHOACTase polyclonal antibody**

Catalog: **BS90300**  Host:

Rabbit

Reactivity: Human, Mouse, Rat

# **BackGround:**

Choline acetyltransferase (also designated choactase, choline O-acetyltransferase) synthesizes acetylcholine in cholinergic neurons. Multiple choactase mRNAs with different 5'-noncoding regions are expressed as R-, N1, N2-, S- and M-types. N1-, N2- and R-type mRNAs produce a single short enzyme, while M-type mRNA produces both long and short enzymes. The long enzyme is targeted to the nuclei of cells, whereas the short protein is found in cytoplasm. A novel NFkB binding site is located within the nerve growth factor-responsive enhancer element that is recognized by the NFkB protein p49, but not p65 or p50. Decreased choactase expression and increased NFkB activity are associated with aging and Alzheimer's disease, indicating that p49 is a negative regulator of choactase expression and suggesting a possible mechanism for aging-associated declines in cholinergic function. Phosphorylation of choactase has been shown to enhance choactase catalytic activity. Specifically, Serine 440 is found to be the phosphorylation site in a recombinant human short choactase by protein kinase C and is involved in regulation of the enzyme catalytic activity and binding to subcellular membranes.

# **Product:**

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

**Molecular Weight:** 

# 82 kDa

**Swiss-Prot:** 

P28329(Human) Q03059(Mouse) P32738(Rat)

**Purification&Purity:** 

ProA affinity purified

**Applications:** 

WB:1:500-1:1,000

ICC:1:50-1:200 IHC:1:50-1:200

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# FC:1:50-1:100 IP:1:10-1:50

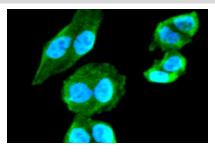
### Storage&Stability:

Store at +4 °C after thawing. Aliquot store at -20 °C or -80 °C. Avoid repeated freeze / thaw cycles.

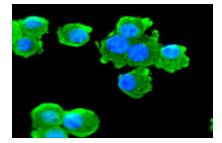
# **Specificity:**

CHOACTase polyclonal antibody detects endogenous levels of CHOACTase protein.

**DATA:** 



ICC staining Cho Line Acetyltransferase in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining Choline Acetyltransferase in N2A cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

#### Note:

For research use only, not for use in diagnostic procedure.

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