

Acid Ceramidase 1. Rabbit Polyclonal Antibody Human

N-acylsphingosine amidohydrolase (Acid ceramidase) 1; ASAH1

BACKGROUND

Acid ceramidase is a lipid hydrolyase responsible for the degradation of ceramide into sphingosine and free fatty acids within lysosomes. It can also synthesize ceramide from sphingosine and free fatty acids as well. The reverse activity is pH dependent (6.0 vs 4.5, respectively). This suggests that the enzyme may have diverse functions within cells dependent on its subcellular location and the local pH. Recent studies have shown that acid ceramidase activity is aberrantly expressed in several human cancers and that it might be a useful drug target. As an example, inhibitors of enzyme activity have been shown to slow the growth of cancer cells alone or in combination with other established, anti-oncogenic treatments. Aberrant activity has also been shown in Alzheimer's disease and overexpression may prevent insulin resistant (Type II) diabetes by free fatty acids.

ORDERING INFORMATION

CATALOG NUMBER
X2407P

SIZE
100 µg

FORM
Unconjugated

HOST/CLONE
Rabbit

FORMULATION
Provided as solution in phosphate buffered saline with 0.08% sodium azide

CONCENTRATION
1 mg/ml

ISOTYPE
IgG

APPLICATIONS
Western Blotting

IMMUNOGEN

Synthetic peptide derived from the C terminal region of the ASAH1 protein.

SPECIES REACTIVITY

Human

COMMENTS

Antibody can be used for Western blotting (1–5 µg/ml). Optimal concentration should be evaluated by serial dilutions.

STORAGE

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

For research use only. Not for use in human diagnostics or therapeutics.

POSITIVE CONTROL/TISSUE EXPRESSION

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

REFERENCES

1. Park, J.H., et al. "Acid ceramidase and human disease." *Biochim Biophys Acta* 2006; 1758:2133-2138.
2. Zeidan, Y.H., et al. "Acid ceramidase but not acid sphingomyelinase is required for tumor necrosis factor- α -induced PGE2 production." *J. Biol. Chem.* 2006; 281:24695–24703.
3. Shtraizent, N., et al. "Autoproteolytic cleavage and activation of human acid ceramidase." *J. Biol. Chem.* 2008; 283:11253–11259.

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