# **Elabscience**®

# **ACER1 Polyclonal Antibody**

## catalog number: E-AB-17827

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Reactivity	Human
Immunogen	Synthetic peptide of human ACER1
Host	Rabbit
Isotype	IgG
Purification	Antigen affinity purification
Conjugation	Unconjugated
Buffer	Phosphate buffered solution, pH 7.4, containing 0.05% stabilizer and 50% glycerol.
Applications	Recommended Dilution

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IHC	1:40-1:200

#### Data



Immunohistochemistry of paraffin-embedded Human liver cancer tissue using ACER1 Polyclonal Antibody at dilution of 1:50(×200)

011.50(~200)

i reparation & Storage	
Storage	Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.
Shipping	The product is shipped with ice pack, upon receipt, store it immediately at the
	temperature recommended.

### Background

ACER1 (Alkaline Ceramidase 1) is a Protein Coding gene. Diseases associated with ACER1 include Corneal Dystrophy, Posterior Amorphous. Among its related pathways are Sphingolipid metabolism and Sphingolipid signaling pathway. GO annotations related to this gene include hydrolase activity, acting on carbon-nitrogen (but not peptide) bonds, in linear amides and dihydroceramidase activity. An important paralog of this gene is ACER2.Ceramides are synthesized during epidermal differentiation and accumulate within the interstices of the stratum corneum, where they represent critical components of the epidermal permeability barrier. Excess cellular ceramide can trigger antimitogenic signals and induce apoptosis, and the ceramide metabolites sphingosine and sphingosine-1-phosphate (S1P) are important bioregulatory molecules. Ceramide hydrolysis in the nucleated cell layers regulates keratinocyte proliferation and apoptosis in response to external stress. Ceramide hydrolysis also occurs at the stratum corneum, releasing free sphingoid base that functions as an endogenous antimicrobial agent. ACER1 is highly expressed in epidermis and catalyzes the hydrolysis of very long chain ceramides to generate sphingosine.