9853 Pacific Heights Blvd.
Suite D. San Diego,
CA 92121, USA
Tel: 858-263-4982
Email: info@abeomics.com

# 20-1007: Polyclonal antibody to ASK1

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| **Clonality :** | Polyclonal |
| **Application :** | IP,IHC,WB |
| **Reactivity :** | Human |
| **Gene :** | MAP3K5 |
| **Gene ID :** | 4217 |
| **Uniprot ID :** | Q99683 |
| **Format :** | Sera |
| **Alternative Name :** | MAP3K5,ASK1,MAPKKK5,MEKK5 |
| **Isotype :** | Rabbit IgG |
| **Immunogen Information :** | A synthetic peptide of ASK1 protein (amino acids 1198- 1216 CHEEQPSNQTVRRPQAVIED) was used as the immunogen for this antibody |

## Description

Ask1 (apoptosis signal-regulating kinase 1), a serine/threonine kinase, is a member of the MAPKKK family that constitutes the JNK and p38 (MAPK) cascades. Members of this family are activated by physiological and cytotoxic stresses and induce various stress responses including apoptosis. Specifically, Ask1-MAPK cascades have been shown to be involved in endoplasmic reticululum (ER) stress-induced apoptosis and in neuronal cell death. Studies suggest that ER stress-induced apoptosis plays critical roles in the pathogenesis in some neurodegenerative diseases including Alzheimer's, Parkinson's, polyglutamine (polyQ), amyotrophic lateral sclerosis (ALS) and Prion diseases. However, the regulation and function of Ask1 in neuronal cell death remains to be fully elucidated. In addition to playing a role in ER stress-induced apoptosis, Ask1 is also thought to be important in cytokine-induced apoptosis, and may also have functions other than apoptosis including roles in cell survival and differentiation. Structurally, human Ask1 has a serine/threonine kinase domain in the middle of the molecule. The kinase domain is evolutionarily conserved from nematode to human. A threonine residue with the activation loop of the kinases domain (Thr838 of human Ask1) is essential for Ask1 activation. There are two coiled-coil domains, one in the N-terminal and the other in the C-terminal domain. The coiled-coil domain in the C-terminal domain has been shown to be required for homo-oligomerzation.

## Product Info

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| **Amount :** | 50 µl |
| **Content :** | 50 µl sera |
| **Storage condition :** | Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles. |

## Application Note

WB: 1:1000-1:2000, IHC (paraffin): 1:1000-1:5000, IHC (frozen): Users should optimize, IP: 1:50-1:200

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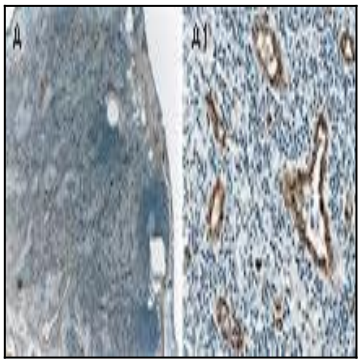


Fig:1 Formalin-fixed paraffin-embedded tissue section of human reactive tonsil stained for ASK1 expression using 20-1007 at 1:2000. A and A1. Low and high magnification, respectively. ASK1 expression was seen in the vasculature (endothelial cells). Hematoxylin-eosin counterstain.

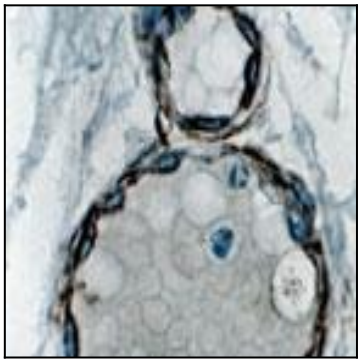

Fig:2 Formalin-fixed paraffin-embedded tissue section of human small venous vessels stained for ASK1 expression using 20-1007 at 1:2000.  ASK1 positive epithelial cells were seen. Hematoxylin-eosin counterstain.