

Product Information

ANTI-NAIP

Developed in Rabbit
Affinity Isolated Antibody

Product Number **N 6648**

Product Description

Anti-NAIP is developed in rabbit using a synthetic peptide conjugated to KLH as immunogen. This peptide corresponds to amino acids 473-490 (YLSLSSTRPDE-GLASIIC) of human NAIP. This antibody is affinity-purified human NAIP using peptide affinity chromatography.

Anti-NAIP detects human NAIP in extracts from *Sf 21* insect cells expressing recombinant human NAIP by immunoblotting.

NAIP (neuronal apoptosis inhibitor protein) is a member of the IAPs (inhibitor of apoptosis proteins) that function in cell death pathways to inhibit programmed cell death.¹ Human NAIP has a calculated molecular mass of approximately 140 kDa. The IAPs share one to three copies of an approximately 70 amino acid sequence motif, BIR (baculovirus IAP repeat).² These BIR regions promote protein-protein interactions with caspases as well as with members of the TRAF family of signal molecules.³

The first human IAP identified was NAIP, discovered based on its association with a neurodegenerative disorder. Mutations and deletions in the NAIP gene locus is a contributing factor in spinal muscular atrophy.⁴ Co-expression of NAIP and hippocalcin protects neurons against calcium-induced cell death in caspase-3-activated and non-activated pathways.⁵ NAIP is strongly expressed in anterior horn and motor cortex neurons of the normal brain. It is also found in human fetal neurons and in adult choroid plexus cells.⁶

Reagent

Anti-NAIP is supplied as 100 µg of antibody lyophilized from a 0.2 µm filtered solution in phosphate buffered saline.

Preparation Instructions

To one vial of lyophilized powder, add 0.1 ml of 0.2 µm-filtered solution of phosphate-buffered saline (PBS) containing 0.02% sodium azide to produce a 1.0 µg/ml stock solution of antibody.

Storage/Stability

Prior to reconstitution, store at -20° C. The reconstituted product may be stored at 2-8° C for at least one month. For prolonged storage, freeze in working aliquots at -20° C. Avoid repeated freezing and thawing.

Product Profile

The recommended working concentration is 1.0 µg/ml for immunoblotting using extracts from *Sf 21* cells expressing human NAIP by chemiluminescent detection. The ability of the antibody to blot endogenous NAIP in cell extracts is not known.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working dilutions by titration.

References

1. Wagenknecht, B., et al., Expression and biological activity of X-linked inhibitor of apoptosis (XIAP) in human malignant glioma. *Cell Death Differ.*, **6**, 370-376 (1999).
2. Sun, C., et al., NMR structure and mutagenesis of the inhibitor-of-apoptosis protein XIAP. *Nature*, **401**, 818-822 (1999).
3. Roy, N., et al., The c-IAP-1 and c-IAP-2 proteins are direct inhibitors of specific caspases. *EMBO J.*, **16**, 6914-6925 (1997).
4. Roy, N., et al., The gene for neuronal apoptosis inhibitory protein is partially deleted in individuals with spinal muscular atrophy. *Cell*, **80**, 167-178 (1995).
5. Mercer, E.A. et al., NAIP interacts with hippocalcin and protects neurons against calcium-induced cell death through caspase-3-dependent and-independent pathways. *EMBO J.*, **19**, 3597-3607 (2000).
6. Pari, G., et al., Immunolocalization of NAIP in the human brain and spinal cord. *Neuroreport*, **11**, 9-14 (2000).

KAA 10/00

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.