



Product Information Sheet

Polyclonal Anti-NIP3/BNIP3 (*Magnetic Bead Conjugate*)

Catalogue No. PA1057

Lot No. 09C01

Ig type: rabbit IgG

Size: 100µg/vial

Specificity

Human, mouse, rat.

No cross reactivity with other proteins.

Recommended application

ImmunoPrecipitation

Immunogen

A synthetic peptide corresponding to a sequence near the C-terminal of human NIP3, identical to the related mouse and rat sequence.

Purity

Immunogen affinity purified.

Contents

Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN₃.

Storage

Store at 4°C for frequent use.

Description

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation

BACKGROUND

The Bcl-2 nineteen kilodalton interacting protein 3 (BNIP3 or NIP3), is a hypoxia-inducible proapoptotic member of the Bcl-2 family that induces cell death by associating with the mitochondria. BNIP3, expressed in skeletal muscle and in the brain at low levels, is primarily localized to the nucleus of glial cells of the normal human brain, as well as in the malignant glioma cell line U251. BNIP3 expression in the cytoplasm increases and localizes with the mitochondria, contributing to induction of cell death. Cellular protein BNIP3 interacts with E1B-19K, BCL-2, BCL-xL, and EBV-BHRF1. BNIP3 contains Bcl-2 homology 3 (BH3) domain and COOH-terminal transmembrane (TM) domain. The BH3 domain of BNIP3 mediates Bcl-2/Bcl-X(L) heterodimerization and confers pro-apoptotic activity; whereas the TM domain is critical for homodimerization, pro-apoptotic function, and mitochondrial targeting.

REFERENCE

1. Burton TR, Henson ES, Baijal P, Eisenstat DD, Gibson SB. The pro-cell death Bcl-2 family member, BNIP3, is localized to the nucleus of human glial cells: Implications for glioblastoma multiforme tumor cell survival under hypoxia. *Int J Cancer*. 2006 Apr 1; 118(7):1660-9.
2. Ray R, Chen G, Vande Velde C, Cizeau J, Park JH, Reed JC, Gietz RD, Greenberg AH. BNIP3 heterodimerizes with Bcl-2/Bcl-X(L) and induces cell death independent of a Bcl-2 homology 3 (BH3) domain at both mitochondrial and nonmitochondrial sites. *J Biol Chem*. 2000 Jan 14; 275(2):1439-48.