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BCH-3/9-2-8 Rabbit Monoclonal Anti-Mouse/Human Id2

Introduction: There are four members of the Id protein family, Id1, Id2, Id3, and Id4. These proteins were initially discovered as proteins involved in the negative control of cell differentiation. Id proteins act as a negative regulator of transcription through physical interaction with a group of transcription factors known as bHLH (basic helix-loop-helix) proteins. Id proteins interact with bHLH proteins in a manner that prevents DNA binding to the HLH proteins. Because of this activity, the group of proteins were named as Id (*for inhibitor of DNA binding).* Id proteins have also been found to bind with a number of other proteins such as Rb, Ets, Paz, MIDA-1 and SREBP-1c. Id proteins may play a central role in coordinating gene expression, cell proliferation, tumorigenesis, and angiogenesis. Id proteins have been found to be over-expressed in many types, including Glioblastoma, Medulloblastoma, Neuroblastoma, Pancreatic Cancer, Thyroid Cancer, Squamous Cell Carcinoma, Breast Carcinoma, Endometrial Cancer, Cervical Cancer, Melanoma, and Retinoblastoma. There is a growing body of evidence that Id1 and Id3 play a central role in angiogenesis. Experiments in Id1 -/-, Id3-/- knockout mice indicated that with the loss of Id expression there was no vascularization and no subsequent growth of tumors. (1,2,3,4,5)

1. Benezra *et al*., Biochemica et Biophysica Acta 1551: (2001) F39-F47.
2. Benezra *etal*., Oncogene 20:(2001) 8334-8341.
3. Lasorella *etal*., Oncogene 20: (2001) 8326-8333.
4. Zebedee *etal*., Oncogene 20: (2001) 8317-8325.
5. Perk *etal.* Cancer Res. 66: (2006) 10870-10877

Antigen Source: Recombinant full length human Id2 protein.

Lot Number:

Quantity: 50 µg (BCH-3/9-2-8-50), or 100 µg (BCH-3/9-2-8-100).

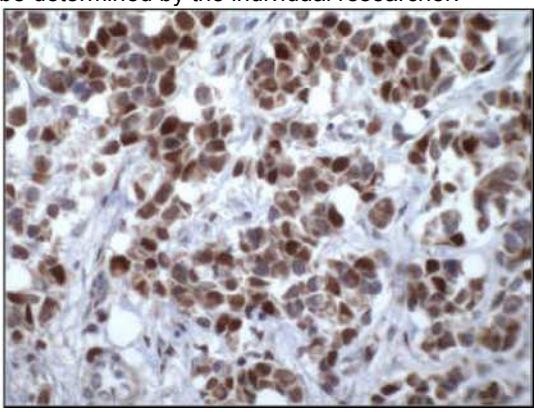
Product Form: Transiently expressed anti-mouse/human Id2. DEAE column chromatography purified. In 50% (v/v) 0.015 M KPO_4 Buffer, pH = 7.40, containing 0.85% (w/v) NaCl, 0.1% (w/v) NaN_3, and 50% (v/v) glycerol.

Specificity: Reacts with mouse and human Id2. Other species have not been tested.

Storage Condition: At -20°C.

Western Blot: We recommend diluting clone 9-2-8 to 0.1 µg/ml (>1/2,500) in a suitable diluent and incubating for 1 hour at room temperature for the primary antibody step in a Western Blot. Optimal dilution for Western Blot should be determined by the individual researcher.

Immunohistochemistry. 9-2-8 is suitable for use with formalin fixed, pararrin embedded tissue. We recommend diluting clone 9-2-8 to 0.5 µg/ml (1/500) in a suitable diluents and incubating for 2 hours at room temperature for the primary antibody step. Optimal dilution for use in Immunohistochemistry applications should be determined by the individual researcher.



IHC with clone 9-2-8. Human mammary tumor stained with Clone 9-2-8. Id2 is expressed in the nucleus of tumor cells.

Limitations and Warranty: This product is intended for **RESEARCH USE ONLY.** It is not intended for nor approved for diagnostic use or therapeutic applications.