323 Vintage Park Drive, Foster City, CA 94404 Tel: (650) 573-1968 Fax: (650) 573-1969
Email: info@biocheckinc.com

BCH-1/195-14 Rabbit Monoclonal Anti-Mouse/Human Id1

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 mouse Id1 protein.

Lot Number:

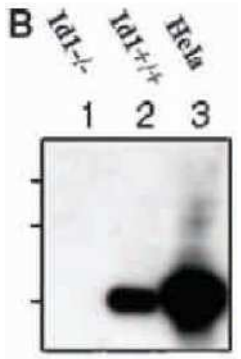
Quantity: 50 µg (BCH-1/195-14-50), or 100 µg (BCH-1/195-14-100).

Product Form: Transiently expressed anti-mouse/human Id1. 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 Id1. Other species have not been tested.

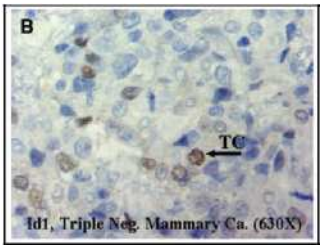
Storage Condition: At -20° C.

Western Blot: We recommend diluting clone 195-14 to 0.1 µg/ml (>1/2,500) in a suitable diluent and incubating for 1-16 hours at room temp for the primary antibody step in a Western Blot. Optimal conditions for Western Blot should be determined by the individual researcher.



Western Blot with clone 195-14.
Lane 1: Whole cell extract from $Id1^{-/-}$ mouse embryonic fibroblasts.
Lane 2: Whole cell extract from $Id1^{+/+}$ mouse embryonic fibroblasts.
Lane 3: Whole cell extract from HeLa cells. (Perk *et.al*.)

Immunohistochemistry: Clone 195-14 is suitable for use with formalin fixed, paraffin embedded tissues. We recommend diluting clone 195-14 to 0.5 µg/ml (>1/500) in a suitable diluent and incubating for 2 hours at room temperature for the primary antibody step. Optimal dilution for use in IHC should be determined by the individual researcher.



IHC with clone 195-14. Invasive ductal carcinoma human triple neg. mammary tumor (negative for PR, negative for ER, and negative for Her-2/*Neu*) with several tumor cells (*TC)* expressing Id1. (Perk *et. al*.)

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