Qty: 100 µg/200 µl

Mouse anti-BACH1

For Research Use Only

Catalog No. 37-0900

Lot No.

Mouse anti-BACH1

FORM
This monoclonal antibody is supplied as a 200 µl aliquot at a concentration of 0.5 mg/ml in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: GO11-1A3 **ISOTYPE:** Mouse IgG_1

IMMUNOGEN
BACH1/GST fusion protein encompassing the C-terminus of human BACH1.

SPECIFICITY
This antibody reacts with the ~130kDa human BACH1 protein.

REACTIVITY
Reactivity has been confirmed with MCF7, HeLa, 293 and U2OS cell lysates on Western blot.

Sample	Immuno-precipitation (native)	Immuno-fluorescence	Western Blotting
Human	+++	+++	+++
Mouse	ND	ND	ND
Rat	ND	ND	ND

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE
Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting: 1-3 µg/ml (Positive controls: MCF7, HeLa and 293 cell lysates)

STORAGE
Store at 2-8°C for up to one month. Store at –20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

BACKGROUND

BRCA1 has been shown to interact with a novel member of the DEAH helicase family, BACH1[2]. The BRCA1 gene encodes an 1863 residue nuclear protein with N-terminal RING and C-terminal BRCT domains[2]. BACH1 appears to bind directly to these BRCT repeats of BRCA1[2]. Moreover, BACH1 appears to contribute to the DNA repair of BRCA1, since it was found that the BACH1 derivative bearing a mutation in a key residue that is essential for catalytic function in other helicases interfered with normal DSBR in a manner that was dependent upon its ability to interact with BRCA1[2]. Tumor-predisposing missense and deletion mutations in the BRCA1 BRCT domain, all of which render BRCA1 defective in its DSBR function also disrupted BACH1 binding to BRCA1[2]. Thus, these data imply that BACH1 is an integral part of BRCA1 in DSBR[2].

Western blots of extracts from three different cell lines revealed a band of 130kDa for BACH1 in all MCF7, HeLa and HCC1937 cell lines[2]. IF analysis revealed the presence of punctate nuclear staining in multiple human cell lines[2].

REFERENCES

1. Kitamuro, T. et al. J Biol Chem 2003 Jan 2.
2. Cantor SB, et al. Cell 105: 149-160, 2001.

RELATED PRODUCTS

Product	*Clone/PAD**	*Cat. No.*
Mouse anti-BRCA1	SG11	33-7500
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

*PAD: Polyclonal Antibody Designation

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

ME020703