Technical Data Sheet

Purified Mouse Anti-Human NES1

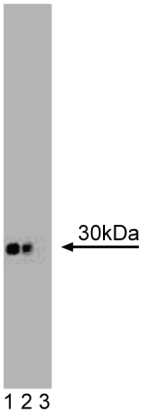
Product Information

Material Number:	**611826**
Alternate Name:	Normal Epithelial cell Specific-1
Size:	50 µg
Concentration:	250 µg/ml
Clone:	2/Nes1
Immunogen:	Human NES1 aa.99-202
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Target MW:	30 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Normal epithelial cell-specific 1 (NES1) was identified in a screen of genes whose mRNA is down-regulated during oncogenic transformation of human mammary epithelial cells (MECs). The protein is homologous to multiple serine proteases including members of the trypsin and kallikrein protease families. Similar to other serine proteases, the sequence of NES1 contains three residues (Ser229, Asp137, and His86) that form a catalytic triad and a putative cleavage site (Arg42). The pattern of NES1 expression in normal human tissues includes prostate, testis, ovary, small intestine, colon, and lung. In addition, expression has been reported to be reduced in human breast and prostate cancer cell lines. NES1 is a secreted protein found in the supernantant of growing MECs. Expression of NES1 in a breast cancer cell line has been reported to suppress oncogenic cell behavior, such as anchorage-independent growth and tumor formation in nude mice. In the breast cancer cell line BT-474, NES1 levels reportedly are up-regulated by steroid hormones, such as estrogen, androgen, and progestin. Thus, NES1 is a steroid-hormone regulated, serine protease that is thought to have important tumor suppressor functions.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of NES1 on a NIH:OVCAR3 cell lysate (Human ovary epithelial adenocarcinoma; ATCC HTB-161). *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-human NES1 antibody.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Not Recommended

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Goyal J, Smith KM, Cowan JM, Wazer DE, Lee SW, Band V. The role for NES1 serine protease as a novel tumor suppressor. *Cancer Res.* 1998; 58(21):4782-4786.(Biology)

Liu XL, Wazer DE, Watanabe K, Band V. Identification of a novel serine protease-like gene, the expression of which is down-regulated during breast cancer progression. *Cancer Res.* 1996; 56(14):3371-3379.(Biology)

Luo LY, Grass L, Diamandis EP. The normal epithelial cell-specific 1 (NES1) gene is up-regulated by steroid hormones in the breast carcinoma cell line BT-474. *Anticancer Res.* 2000; 20(2A):981-986.(Biology)