Technical Data Sheet

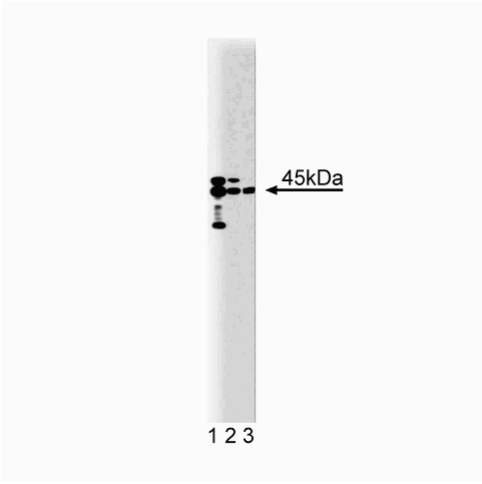
Purified Mouse Anti-Human SGT1

Product Information

Material Number:	**612104**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	29/SGT1
Immunogen:	Human SGT1 aa. 191-306
Isotype:	Mouse IgG2b
Reactivity:	QC Testing: Human
Target MW:	45 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Maintenance of cellular function requires timely and selective degradation of key regulatory proteins. For example, progression of the mammalian cell cycle is regulated by the degradation of key cell cycle proteins via the ubiquitin pathway. Ubiquitin, a soluble protein of 76 amino acids, is enzymatically attached to an ε-NH2-Lys in a target protein. Ubiquitin-conjugated proteins are recognized and degraded by the 26S proteasome. Targeting of specific cellular proteins for degradation via the ubiquitylation pathway may require the formation of protein complexes. One group of ubiquitin enzyme containing complexes are the multisubunit cullin-containing RING E3 ubiquitin ligases, that include SCF and VCB-Cul-2 complexes. These complexes contain a RING domain protein, a cullin, multiple adaptor proteins, and ubiquitin enzymes. The SCF complex includes Skp1, SGT1, Cul-1, F-box protein, and CDC34/Ubc3. This complex preferentially ubiquitylates phosphoproteins, such as β-catenin, IκBα, and G1 cyclins. The mammalian SGT1 is an adaptor protein that can interact with Skp1 and can rescue yeast SGT1 null mutations. Thus, SGT1 may be an important component of the SCF ubiquination ligase complex.



Western blot analysis of SGT1 on a Jurkat cell lysate (Human T-cell leukemia; ATCC TIB-152). *Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti-human SGT1 antibody.*

Preparation and Storage

Store undiluted at -20°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

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

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Suggested Companion Products

Catalog Number	Name	Size	Clone
611451	Jurkat Cell Lysate	500 µg	(none)
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. 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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Kitagawa K, Skowyra D, Elledge SJ, Harper JW, Hieter P. SGT1 encodes an essential component of the yeast kinetochore assembly pathway and a novel subunit of the SCF ubiquitin ligase complex. *Mol Cell.* 1999; 4(1):21-33.(Biology)

Read MA, Brownell JE, Gladysheva TB, et al. Nedd8 modification of cul-1 activates SCF(beta(TrCP))-dependent ubiquitination of IkappaBalpha. *Mol Cell Biol.* 2000; 20(7):2326-2333.(Biology)