Technical Data Sheet

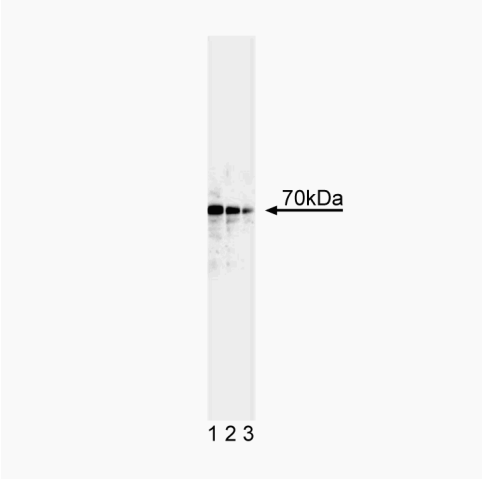
Purified Mouse Anti-Human p73

Product Information

Material Number:	**558787**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	GC-15
Immunogen:	Human p73α aa.380-367
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Target MW:	70 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

p53 is a tumor suppressor which acts as an S-phase checkpoint for DNA damage. The gene for p53 is the most commonly mutated gene identified in human cancers. Recently, a new member of the p53 family, p73, was identified. p73 is structurally homologous to p53 in several regions, including the p53 N-terminal transactivation domain and C-terminal oligomerization domains, as well as the region corresponding to the p53 DNA-binding domain. When overexpressed, p73 can promote p53-like functions, including induction of apoptosis and induction of transcription from p53-responsive promoters such as p21. Despite structural and apparent functional homology, data suggests that these proteins may have distinct functions as well. For example, viral oncoproteins such as Adenovirus E1B 55K and HPV E6, which bind to and thus inactivate p53 during the process of transformation, do not bind to p73. In addition, unlike p53, p73 expression is not induced by DNA damage, e.g. UV irradiation. Several p73 splice variants have been identified, including α (full-length), β (missing exon 13), γ (missing exon 11) and δ (missing exons 11, 12 and 13). Two hybrid analysis has shown variable interaction(s) between these isoforms in vitro. Many types of normal, tumor and virally-transformed cell lines express detectable levels of p73; however, the relative expression of p73 isoforms, as well as their functional activity, appears to be differentially regulated in various cell types. p73α and β isoforms migrate at molecular weights of approximately 80 kDa (α) and 70 kDa (β), respectively. The GC-15 antibody reacts with human p73α and β. A fusion protein containing amino acids 380-367 of human p73α was used as immunogen.



Western blot analysis of p73. *Lysate from 293 cells was probed with anti-p73 (clone GC-15) at concentrations of 1.0 (lane 1), 0.5, (lane 2), and 0.25 µg/ml (lane 3). p73 is identified at ~70 kDa.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4° C.

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit **bdbiosciences.com/how_to_order/**

Application Notes

Application

Western blot	Routinely Tested
Immunoprecipitation	Reported

Recommended Assay Procedure:

293 human embryonic kidney (ATCC CRL-1573) is recommended as a positive control.

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.

References

De Laurenzi V, Costanzo A, Barcaroli D, et al. Two new p73 splice variants, gamma and delta, with different transcriptional activity. *J Exp Med.* 1998; 188(9):1763-1768.(Biology)

Jost CA, Marin MC, Kaelin WG Jr. p73 is a simian [correction of human] p53-related protein that can induce apoptosis. *Nature.* 1997; 389(6647):122-123.(Biology)

Kaghad M, Bonnet H, Yang A, et al. Monoallelically expressed gene related to p53 at 1p36, a region frequently deleted in neuroblastoma and other human cancers. *Cell.* 1997; 90(4):809-819.(Biology)

Marin MC, Jost CA, Irwin MS, DeCaprio JA, Caput D, Kaelin WG Jr. Viral oncoproteins discriminate between p53 and the p53 homolog p73. *Mol Cell Biol.* 1998; 18(11):6316-6324.(Immunogen: Immunoprecipitation, Western blot)

Zhu J, Jiang J, Zhou W, Chen X. The potential tumor suppressor p73 differentially regulates cellular p53 target genes. *Cancer Res.* 1998; 58(22):5061-5065.(Biology)