ADVANCED TARGETING SYSTEMS

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p53 scFv Recombinant Antibody
MOUSE MONOCLONAL

Catalog Number: AB-301
Quantity: 2 micrograms, 10 micrograms
Format: sterile filtered in 1x PBS and 50% glycerol
Host: *E. coli*

Background:
p53 is a tumor suppressor gene expressed in a wide variety of tissue types and is involved in regulating cell growth, replication, and apoptosis. It binds to mdm2, SV40 T antigen, and human papilloma virus E6 protein. p53 senses DNA damage and possibly facilitates repair. Mutation involving p53 is found in a wide variety of malignant tumors, including breast, ovarian, bladder, colon, lung, and melanoma. It also plays an essential role in the regulation of cell cycle, specifically in the transition from G0 to G1. It is found in very low levels in normal cells, however, in a variety of transformed cell lines, it is expressed in high amounts, and believed to contribute to transformation and malignancy. It is postulated to bind as a tetramer to a p53-binding site and activate expression of downstream genes that inhibit growth and/or invasion, and thus function as a tumor suppressor. Mutants of p53 that frequently occur in a number of different human cancers fail to bind the consensus DNA binding site, and hence cause the loss of tumor suppressor activity. Alterations of the TP53 gene occur not only as somatic mutations in human malignancies, but also as germline mutations in some cancer-prone families with Li-Fraumeni syndrome.

Specificity and Preparation:
Recombinant Anti-p53 produced in *E. coli* is a non-glycosylated, polypeptide chain containing a hexahistidine tag and having a molecular weight of 37 kDa. p53 is purified by proprietary chromatographic techniques. Purity is greater than 95.0% as determined by RP-HPLC and SDS-PAGE analysis.

Usage and Storage:
Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Avoid repeated freezing and thawing. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate.

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