

DESCRIPTION

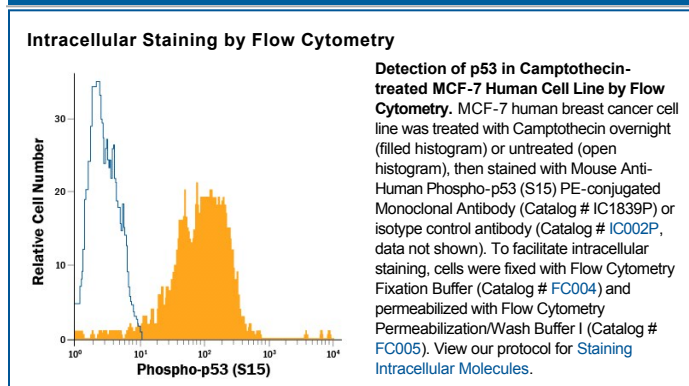
Species Reactivity	Human
Specificity	Detects human p53 that is phosphorylated at S15 in Western blots. In Western blots, no cross-reactivity with human p53 that is unphosphorylated at S15 is detected.
Source	Monoclonal Mouse IgG ₁ Clone # 261352
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Phosphopeptide containing the human p53 S15 site Accession # P04637
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	10 μ L/10 ⁶ cells	See Below

DATA



PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

p53 is a 52-55 kDa member of the p53 family of proteins. It is ubiquitously expressed, being found in both cytoplasm (as a monomer) and nucleus (as an oligomer/tetramer). Human p53 is 393 amino acids in length and contains multiple domains that interact with multiple binding partners. There are numerous posttranslational modification sites, including multiple phosphorylation, acetylation, NEDDylation and ubiquitination sites, plus one SUMOylation and two methylation sites. N-terminal modifications tend to stabilize p53, while C-terminal modifications impact molecule oligomerization, DNA-binding and ubiquitination. Phosphorylation on Ser15 inhibits MAM2 modification of p53, thereby extending its half-life. Notably, there are nine possible p53 isoforms, six of which do not contain Ser15 of the standard (or full-length) form. Thus, they are unlikely to show strong positive staining that is associated with the phosphorylation of Ser15. p53 is best known as a preserver of cell genome integrity. In the nucleus, it stimulates needed repairs to DNA and, if necessary, cease cell division and/or initiate apoptosis. In addition, it has at least one role in the cytoplasm where it is known to regulate glucose consumption.