

TECHNICAL DATASHEET ELISA – p53

## ELISAONE™ p53 Assays

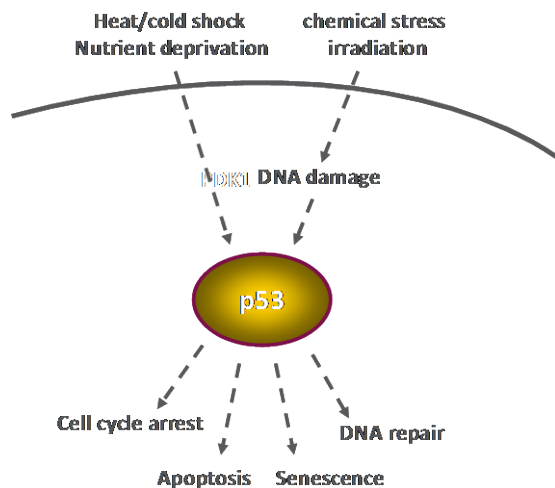
ELISAONE™ assay kits for analysis of cellular p53 (p-Ser15) phosphorylation and Total p53

### ELISAONE™ Overview

ELISAONE assay kits are for the detection of cellular proteins. A whole new way of performing cellular assays, ELISAONE takes the hard work out of running a standard ELISA, while still giving the high quality results expected from a sandwich immunoassay. Fully self-contained kits are supplied in a convenient 96-well format. Simple to use and highly sensitive, ELISAONE kits are designed to get results, fast.

### ELISAONE™ phospho-p53 and Total p53 assays

p53 (also known as protein 53 or tumor suppressor protein 53), is a transcription factor that plays a major role in regulating the cellular response to DNA damage and other replicative stresses. p53 becomes phosphorylated in response to several types of cellular stress, including DNA damage, oxidative stress and osmotic shock.



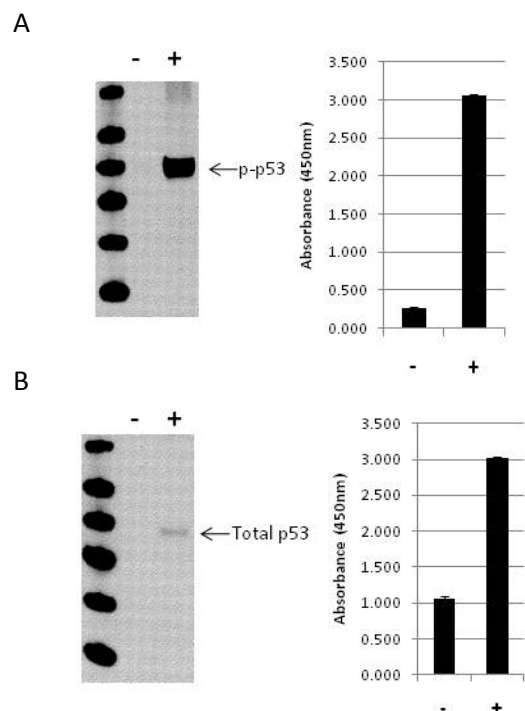
Phosphorylation of the N-terminus of p53, a region that contains a large number of phosphorylation sites, inhibits its negative regulator, MDM2, from interacting with p53. When phosphorylated, the half-life of the p53 protein is increased, leading to its accumulation in cells. Phosphorylated p53 also undergoes conformational change, allowing tetramerization. Activation of p53 can ultimately lead to either DNA repair, or programmed cell death.

### ELISAONE™ p53 assay technical specifications

#### Specificity:

TGR's ELISAONE p53 assay kits detect endogenous levels of p53 (GenBank Accession NP\_000537) in cellular lysates. Phospho-p53 assay kits detect p53 only when phosphorylated at Ser15. Total p53 assay kits detect p53 irrespective of phosphorylation status.

As shown below, using p53 assay kits, a significant increase in both (A) p53 phosphorylation at Ser15 and (B) accumulation of total p53, is detected in U-2 OS cells treated with doxorubicin for 18 hours, compared with untreated cells.



#### Species cross-reactivity:

Tested: Human; Other species should be tested on a case-by-case basis.

QC: Phospho-p53 and Total-p53 assays are routinely tested against U-2 OS cellular lysates. See certificate of analysis for Lot-specific information. Available at [www.tgrbio.com](http://www.tgrbio.com).

## Ordering Information

ELISAONE Assay Kits are available now from:

### **CEDARLANE (www.cedarlanelabs.com)**

**US:** 1-800-721-1644

**CANADA:** 1-800-268-5058

### **AXXORA (www.axxora.com)**

**US:** 1-858-550-8830

**Email :** axxora-usa@axxora.com

Product	Pack Size	Catalog
Phospho-p53 (S15)	96 assays	EOK009
Total p53	96 assays	EOK019

## Complementary Products

ELISAONE™ assay kits are available for the following targets:

#### *MAPK Signaling:*

ERK 1/2, p38 MAPK, JNK/SAPK

#### *AKT Signaling:*

AKT 1/2/3, p70S6K

#### *STAT Signaling:*

STAT3, STAT5

#### *NF-κB Signaling:*

NF-κB p65, I-κBα

#### *p53 Signaling:*

p53

#### *Protein normalization:*

GAPDH

*Also available separately:*

Product	Pack Size	Catalog
ELISAONE™ 96-well strip-well microplates	1 plate	EPL001
	5 plates	EPL002
5X Lysis Buffer	100mL	EBF001
Enhancer Solution	100mL	EBF002
10X Wash Buffer	500mL	EBF003

Check our website ([www.tgrbio.com](http://www.tgrbio.com)) for the latest information on target availability.