

Product Information

In Vitro Toxicology Kits

Catalog Number	Kit Name	Substrate	Parameter Measured	Test Method	Abs	References
Tox-1	MTT	(3-[4,5-Dimethylthiazol-2-yl]-2,5-diphenyltetrazolium bromide	Cell viability by mitochondrial dehydrogenase	MTT is converted to an insoluble colored formazan derivative which is then solubilized in acidic isopropanol	570nm	1,2,3, 4,5,6
Tox-2	XTT	(2,3-bis[2-Methoxy-4-nitro-5-sulphophenyl]-2H-tetrazolium-5-carboxanilide	Cell viability by mitochondrial dehydrogenase	XTT is converted to a water soluble colored formazan derivative	450 nm	7,8,9
Tox-3	Acid Phosphatase	p-Nitrophenyl phosphate disodium	Biomass by membrane associated acid phosphatase activity (viable & nonviable cells)	p-Nitrophenyl phosphate is converted to a colored compound by the acid phosphatase	405 nm	10
Tox-4	Neutral Red	Neutral Red (3-Amino-7-dimethylamino-2-methylphenazine hydrochloride)	Viable cells as measured by uptake of the dye	Neutral red is taken up by viable cells and stored in the lysosomes. The dye is extracted and the uptake is quantitated by spectroscopy	540 nm	11,12 13,14 15
Tox-5	Kenacid Blue	Brilliant Blue R (Coomassie ⁷ Blue-R)	Biomass by total protein	The dye binds to cellular protein and is then solubilized in acidic ethanol	570 nm	16,17
Tox-6	Sulforhodamine B	Sulforhodamine B	Biomass by total protein	The dye binds to cellular protein and is then solubilized in base	565 nm	18,19, 20
Tox-7	Lactate dehydrogenase (LDH)	Lactic Acid	Either membrane integrity or cell biomass by cytoplasmic lactate dehydrogenase	LDH reduces NAD ⁺ which is then used to convert a tetrazolium dye to a soluble colored formazan derivative	490 nm	21,22
Tox-8	Resazurin	Resazurin	Metabolic activity of living cells	Bioreduction of the dye reduces the amount of its oxidized form (blue) and concomitantly increases the fluorescent intermediate (red)	690 nm	23,24 25,26

Coomassie Blue R is a trademark of ICI, PLC.

Product Nos. Tox-3 and Tox-5 are deleted items.

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