ELISA Substrates

Enzyme	Substrate	Product	Prod No	Color Timed	Wavelength Timed	Color Stopped	Wavelength Stopped	Comments
For Peroxidase:								
	OPD	SIGMA *FAST*™ OPD tablets	P 9187	Yellow-Orange	450 nm	Orange	492 nm	Very sensitive
	TMB	TMB liquid substrate system	T 8665	Blue	370 or 655 nm	Yellow	450 nm	TMB is safer and more sensitive than OPD[1]
		TMB liquid substrate system for ELISA	T 0440					Less hazardous than T8665
		TMB liquid substrate, supersensitive	T 4444					
		TMB liquid substrate, slow kinetic form	T 4319					
		TMB liquid substrate Super slow kinetic form	T 5569					
	AzBTS	2,2'-Azino-bis(3-ethylbenzthiazoline-6-sulfonic acid) liquid substrate for ELISA	A 3219	Blue-Green	405 nm	Blue-Green	405 nm	Color alternative to TMB and OPD
For Alkaline Phosphatase:								
	pNPP	SIGMA *FAST*™ pNPP tablets, 5 ml	N 1891	Yellow	405 nm	Yellow	405 nm	Each tablet set makes 5 ml, just add water
		SIGMA *FAST*™ pNPP tablets, 20 ml	N 2770	Yellow	405 nm	Yellow	405 nm	Each tablet set makes 20 ml, just add water
		pNPP Liquid Substrate system	N 7653	Yellow	405 nm	Yellow	405 nm	Store below 0°C
		Alkaline Phosphatase Yellow Liquid Substrate for ELISA	A 3469	Yellow	405 nm	Yellow	405 nm	Non-Hazardous. Store at 2-8°C
	PMP	Alkaline Phosphatase Red Liquid Substrate for ELISA	A 3344	Red	540-560 nm	Red	540-560 nm	Color alternative to pNPP based systems

References: 1. Goka, A.K., And Farthing, M.J., The use of 3,3′,5′-tetramethylbenzibenzidine as a peroxidase substrate in microplate enzyme-linked immunosorbent assay. J. Immunoassay, **8**, 29-41 (1987).

OPD: o-Phenylenediamine, PNPP: p-Nitrophenylphosphate, PMP: Phenolphthalein monophosphate, TMB: 3,3′,5,5′-Tetramethylbenzidine