

NADP⁺/NADPH Colorimetric Assay Kit

Cat No: HR3BC1297

For research use only

Overview

Detection Method	Colorimetric method
Storage	-20°
Instrument	Microplate reader (450 nm)
Assay Time	70 min
Validity	6
Assay Type	Quantitative
Sample Type	animal tissu, cells
Synonyms	NADP/NADPH
Instrument	Microplate reader (450 nm)
Detection Principle	Detect total content of NADP⁺ and NADPH: Glucose 6-phosphate (G6P) is oxidized to 6-phosphate gluconolactone (6-PG) by glucose-6-phosphate dehydrogenase (G6PDH), and NADP⁺ is reduced to NADPH during this reaction. NADPH, under the action of 1-mPMS, transfer electrons to WST-8 to produce the yellow product, which has a characteristic absorption peak at 450 nm. Therefore, the total content of NADP⁺ and NADPH can be quantified by measure the OD value at 450 nm. Detect NADPH: After treating sample, heat at 60° water bath for 30 min. the NADP⁺ of the sample is decomposed and only NADPH remains. NADPH reduces WST-8 to form Formazan, and the amount of NADPH is determined by measure the OD value at 450 nm. Detect NADP⁺ and NADP⁺/NADPH: The content of NADP⁺ and the ratio of NADP⁺/NADPH in the sample can be obtained according to the total content of NADP⁺ and NADPH obtained of the first two steps as well as the separate content of NADPH.
Reagents	Ultrapure water
Labware	Test tube, Micropipettor, 37° water bath, 10 KD filters tube.
Size	96T
Sensitivity	0.02 ?mol/L
Detection Range	0.02-5.0 ?mol/L
Recovery Rate	