

NQO1 Activity Assay Kit ab184867

13 References 画像数 6

製品の概要

製品名	NQO1 Activity Assay Kit			
検出方法	Colorimetric			
再現性	Intra-Assay (同時再現性)			
	サンプル	N	平均値	SD
	Overall	3		CV%
				2.183%
	Inter-Assay (日差再現性)			
	サンプル	N	平均値	SD
	Overall	9		CV%
				6.035%
サンプルの種類	Cell culture extracts, Adherent cells, Suspension cells, Tissue Extracts, Cell Lysate, Tissue Homogenate, Tissue Lysate			
アッセイタイプ	Enzyme activity			
全工程の試験時間	0h 30m			
種交差性	交差種: Mouse, Rat, Cow, Human			
製品の概要	NQO1 Activity Assay kit (ab184867) is designed for the sensitive and accurate measurement of NQO1 (NAD(P)H dehydrogenase [quinone] 1) activity.			

The enzyme activity is determined by following the reduction of Menadione with cofactor NADH and the simultaneous reduction of WST1 which leads to increased absorbance at 440 nm. Dicoumarol is used as an inhibitor of NQO1 as part of the assay.

- NQO1 assay protocol summary:
- add samples to wells
 - add reaction buffer + inhibitor and reaction buffer to separate sample wells
 - analyze with a microplate reader for 5 min

特記事項

NQO1 serves as a quinone reductase in connection with conjugation reactions of hydroquinones involved in detoxification pathways, NQO1 protects against quinone-induced damage by competing with potentially toxic one-electron pathways. It also functions in biosynthetic processes such as the vitamin K-dependent gamma-carboxylation of glutamate residues in prothrombin

synthesis.

試験プラットフォーム

Microplate reader

製品の特性

保存方法

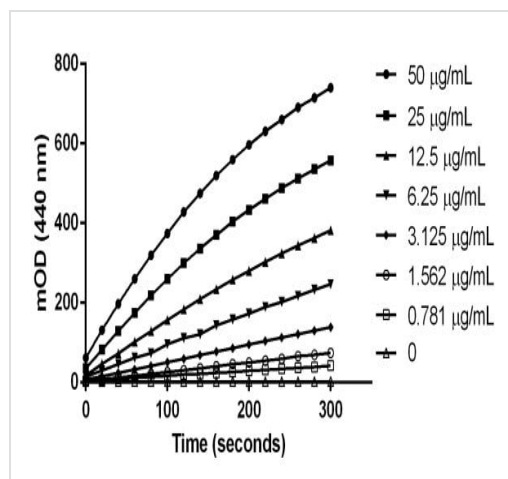
Store at -20°C. Please refer to protocols.

内容	1 x 96 tests
1000X Cofactor (lyophilized)	1 vial
1000X Inhibitor (lyophilized)	1 vial
100X Dye (lyophilized)	1 vial
20X Basic Buffer	1 x 3ml
2X Extraction Buffer	1 x 15ml
5000X Menadione	1 x 100µl
500X NADH (lyophilized)	1 vial
96-well Microplate	2 units

細胞内局在

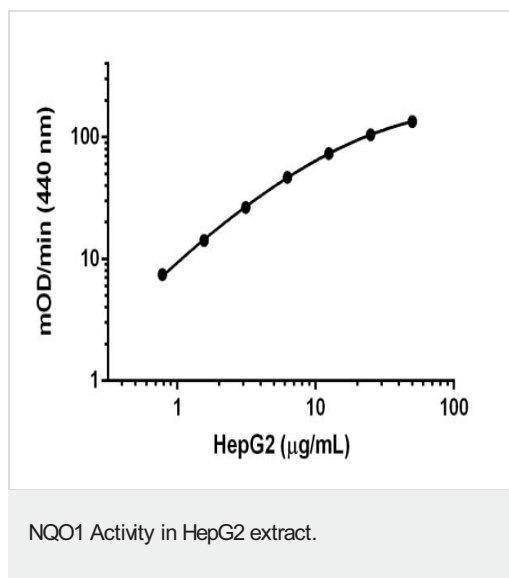
Cytoplasmic

画像



Raw data from various concentrations of HepG2 cell extracts.

An example is shown below where the rate/slope is calculated between these time points.



This raw data is expressed as rate (mOD/min) per microgram of cell extract added per well as shown above. The molar extinction coefficient factor for the WST1 dye is 25.9/mM/well.

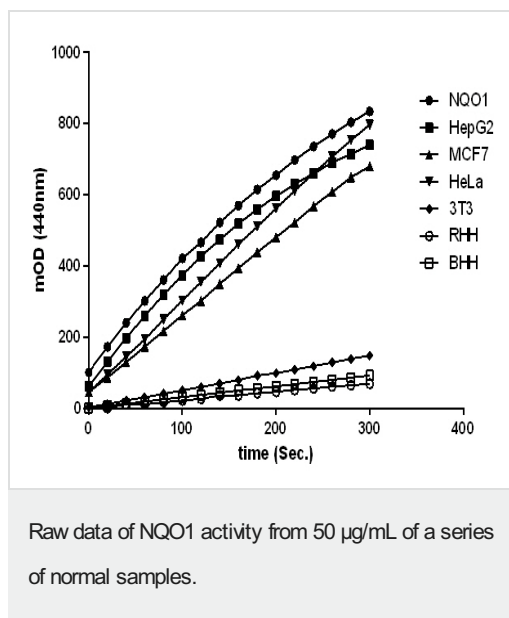


Figure 3a

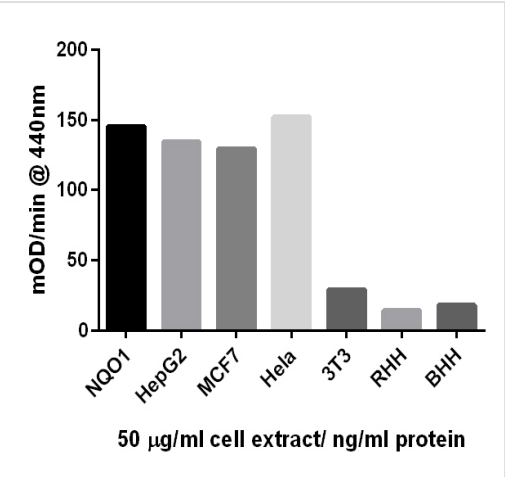


Figure 3b

Comparison of NQO1 activity in different samples at 50 ug/mL

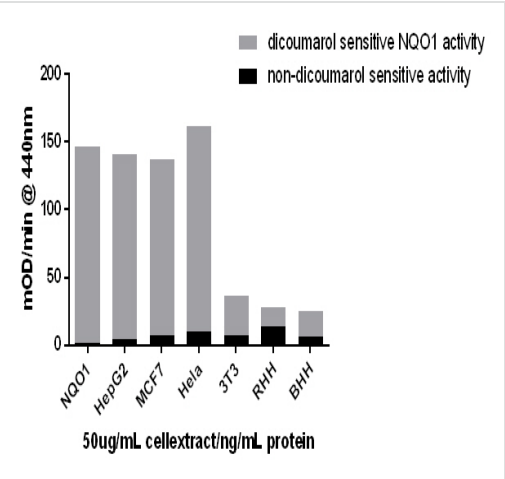


Figure 3c

Dicoumarol sensitive NQO1 activity/total activity in a series of normal cell lysates at 50 ug/mL.

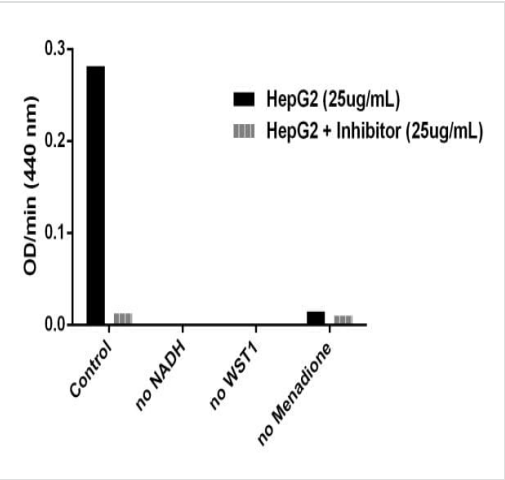


Figure 4

NQO1 activity assay components requirement test.

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