Specification

NBT *BioChemica* A1243

Physical Description:	Solid
Product Code:	A1243
Product Name:	NBT *BioChemica*
Specifications:	Assay (photometr.): min. 99 % Solubility (1 %; hot MeOH): clear, yellow Sulfated ash: max. 0.05 % Water (K.F.): max. 3 %
WGK:	2
Storage:	2-8°C protected from light
Molecular Formula:	$C_{40}H_{30}Cl_2N_{10}O_6$
M:	817.65 g/mol
CAS:	298-83-9
EINECS:	206-067-4
CS:	29339980

Comment

As a histochemical assay, glucose-6-phosphate dehydrogenase oxidizes NADPH and reduces thereby the hydrogen acceptor NBT. This results in the precipitation of colored, insoluble formazan at the site of enzyme activity (1). Store a stock solution (50 mg/ml or 75 mg/ml in 70 % aqueous DMF) at -20°C or \+4°C for up to one year (4).A completely different application of NBT is the isolation of fibrinogen from plasma samples. Therefore, plasma and NBT (1 g/L) are mixed in a ratio of 1 \: 1 and stirred for 5 - 10 minutes at room temperature. A precipitate is formed, that contains very pure fibrinogen (2).The most popular application of NBT is the determination of the activity of alkaline phosphatase in combination with BCIP (see A1117). This reaction is based on the oxidation of indoxyl to the insoluble, blue indigo by NBT (4).

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Bibliography

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