FT-423876

ABTS, HRP chromogenic substrate

Description

High quality ABTS - for ELISA immunostaining techniques

Name: **ABTS Biotech grade**
Syn. : 2,2'-azino-di-(3 ethylbenzthiazoline sulfonic acid
CAS : 30931-67-0

cat.number : UP423876 , 5g UP423877 , 10g
UP423879 , 50 tabs (10mg)

$C_{18}H_{24}N_4O_6S_4$; MW: 548.7

Storage: 4°C+, keep dry, protect from light (L)

Security note: ABTS is an irritant, causing irritation to eyes, skin, and mucous membranes. Avoid breathing dust. Wear gloves and wash hands thoroughly with water after handling. For safer use, use our ABTS pre-weighed tablets, or ABTS solution #UP732550.

ABTS (2,2'-Azinobis [3-ethylbenzothiazoline-6-sulfonic acid]-diammonium salt) is a water-soluble HRP substrate that yields a green end product upon reaction with peroxidase. The green product has two major absorbance peaks, 410 nm and 650 nm. ABTS is less sensitive than OPD and TMB in ELISA applications. It is less readily oxidized, and its color development is slower(approximately 20 minutes). This may be advantageous if unacceptable background results from the use of the OPD or TMB substrates due to higher sensitivities.

Directions for use

Protocol: DAB as HRP substrate in ELISA technique

Use gloves should be worn when handling ABTS, as well other harmful reagents required in the procedure..

- **prepare ABTS reagent – for ELISA**

Prepare mother solutions

70mM citrate-phosphate buffer, pH 4.2
Solution A = 0.1M anhydrous citric acid, 19.21g/L
Solution B = 0.2M Dibasic Na Phosphate.7H2O, 53.65g/L

Prepare substrate solution (1mM ABTS in 70mM citrate-phospate buffer, pH4.2):

For 500ml buffer, mix 147ml A + 103ml B and make up to 500ml with deionized H2O.
Warm ABTS vial to room temperature before opening.
Add 274mg ABTS to 500ml buffer to make the substrate solution (contains 1mM ABTS).
The substrate solution is stable at 4°C in the dark.
CAUTION: *The assay will not work if you do not add the H_2O_2 !*

Immediately prior to adding to assay plates, add 1µl 30% H_2O_2 solution/ml ABTS solution.

CAUTION: *Hydrogen peroxide is a powerful oxidizing agent; avoid skin contact*.

Other protocols can be found in the literature.

Related reagents

See our our BioScience catalog for:

*other reagents for immunodetections with DAB substrate:

Hydrogen Peroxide #15983Q
WB:HP-labeled secondary antibodies (p.A324)
HRP labeled (strept)avidins (A350)
buffers and saturants (A365):
SeaBlock agent #UP40301A
TBS with non fat milk #GS4160
TBS with Tween20 #GS4200
BSA #UPQ84170 (powder) or #UP900130 (soln 30%)
BioBlock Saturating agent for blotting (inTBS) #N13650
Non fat milk powder #768701

*Other substrates for HRP: chemiluminogenic:

UptiLight Classic #UP996190, spray #BM4961, UltraSensitive #58372A

chromogenic:

ABTS solution #UP732550
DAB tablets #UP732310

Contact uptima – Interchim for any question

Rev..H08E