

DAPI counterstaining reagents, Thermo Scientific Pierce

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A blue fluorescent probe for double-stranded DNA.

DAPI is a blue fluorescent probe that fluoresces brightly when it is selectively bound to double-stranded DNA.

This selectivity for DNA allows staining of nuclei with little background for the cytoplasm, making DAPI the classic nuclear counterstain for immunofluorescence microscopy. DAPI has greater photostability than Hoechst dyes, another common nuclear counterstain, when it is bound to double-stranded DNA. DAPI has an excitation maximum at 345nm (nearer to 360 nm when bound to dsDNA) and an emission maximum at 455nm.

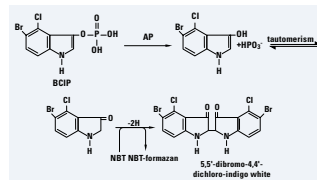
Catalogue No	Description	Quantity
PN46190	DAPI 4',6-Diamidino-2-phenylindole, dihydrochloride MW 350.3	10mg

NBT/BCIP substrate solutions, Thermo Scientific Pierce

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NBT/BCIP reaction scheme. BCIP is hydrolysed by alkaline phosphatase to form an intermediate that undergoes dimerisation to produce an indigo dye. The NBT is reduced to the NBT-formazan by the two reducing equivalents generated by the dimerisation.

An ideal system for blotting or staining applications with AP is the combination of NBT and BCIP.

Together, they yield an intense, black/purple precipitate that provides much greater sensitivity than either substrate alone. This reaction proceeds at a steady rate, allowing accurate control of its relative sensitivity. NBT/BCIP characteristically produces sharp band resolution with minimal background.

- Regular formulation ideal for Western blotting
- Suppressor formulation contains levamisole for inhibition of endogenous enzyme, making it ideal for immunohistochemistry applications

Catalogue No	Description	Quantity, mL
PN34042	NBT/BCIP substrate solution	250
PN34070	NBT/BCIP Plus suppressor substrate solution	100

Nitro blue tetrazolium (NBT, Nitro BT, *p*-Nitro blue tetrazolium)

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Fisher BioReagents®

Nitro blue tetrazolium is used in conjunction with BCIP as a substrate for acid and alkaline phosphatases.

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Catalogue No	Quantity
BPE108-1	1g

C₄₀H₃₀N₁₀O₉Cl₂

M.W. 817.65

ONPG substrate, Thermo Scientific Pierce

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For the detection of β -Galactosidase label in ELISA applications.

ONPG (*o*-nitrophenyl- β -D-galactopyranoside) is the preferred colourimetric substrate for ELISA applications involving β -Galactosidase (β -Gal) reporter enzyme.

The enzyme substrate reaction yields a yellow product with an absorbance maximum at 420nm but whose intensity is also very high at 405nm (matching a common plate reader filter set).

Catalogue No	Description	Quantity
PN34055	ONPG powder	5g

PNPP substrates, Thermo Scientific Pierce

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Used to detect alkaline phosphatase label in ELISA applications.

PNPP (*p*-nitrophenyl phosphate, disodium salt) is a widely used substrate for detecting alkaline phosphatase in ELISA applications.

When alkaline phosphatase and PNPP are reacted, a yellow water soluble reaction product is formed. This product absorbs light at 405nm.

Catalogue No	Description	Quantity
PN34045	PNPP powder Sufficient to prepare 25L of substrate when diluted in Diethanolamine substrate buffer	25g
PN34047	PNPP tablets Sufficient to prepare 525mL of substrate when diluted in Diethanolamine substrate buffer.	105 x 5mg
PN37620	Phosphatase substrate kit Sufficient reagents for 525mL of substrate. Includes: Diethanolamine buffer, 225mL PNPP tablets, 105 x 5mg	Kit
PN37621	PNPP substrate solution	100mL
PN34064	Diethanolamine substrate buffer (5X)	225mL

Stable peroxide buffer, Thermo Scientific Pierce

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Stable solution for HRP substrates.

The Thermo Scientific Pierce stable peroxide substrate buffer is less corrosive than the traditional 30% stock solution of hydrogen peroxide and provides more consistent results.

Although the stable peroxide substrate buffer is provided as a 10X concentrate, it is also stable at a 1X concentration.

Catalogue No	Description	Quantity, mL
PN34062	Pierce stable peroxide buffer (10X)	100