Hydroxyethylcellulose

H007 100g

Polyvinyl Alcohol

M.W. 30,000 to 50,000. 87-89% hydrolysed

P014 500g
P015 100g

Polyvinyl Pyrrolidone

Pharmaceutical grade. M.W.40,000

P016 100g

Enzymes

Collagenase

Store below -20°C

Salt-free, lyophilised.
Used in conjunction with hyaluronidase for the dissociation of tissues into individual cells for EM and biochemical studies.
Berry & Friend, J. Cell Biol., 43, 506 (1969)

C011 50mg

Deoxyribonuclease - 1

Store 0°C

(Bovine pancreas) Salt-free, lyophilised. Digestive enzyme forming 5'nucleotides from DNA. Contains a small amount of glycine stabiliser. Activity 2000-2600 kunitz units/mg.

D001 100mg

Deoxyribonuclease - 11

Store 0°C

(Bovine spleen) Essentially salt-free, lyophilised. Digestive enzyme forming 3'nucleotides from DNA.
Activity >250 Kunitz units/mg.

D002 100mg

Hyaluronidase

Store below -20°C

(Ovine testes) Salt-free, lyophilides. Used in conjunction with collagenase.
Activity 0.02U/mg.
Berry & Friend, J. Cell Biol., 43, 506 (1969)

H004 1g

Neuraminidase

Store 4°C

(Vibrio cholerae) Used to remove sialic acid from cell surface membranes.
Activity 500 units/mg.
Gasic & Berwick, J. Cell Biol., 19, 223 (1963)
Benedetti & Emmelot, J. Cell Biol., 2, 499 (1967)

N001 1ml

Pepsin

Store 4°C

Proteolytic enzyme.

P004 25g

Peroxidase

Store at 2° to 8°C

(Horseradish) Salt-free, lyophilised.
Grade 1: Activity 250-330 purpurogallin units/mg. RZ value 3.0

Grade 11: Activity 150-200 purpurogallin units/mg. RZ value 2.0

Used as a tracer for intercellular spaces and for pinocytosis.
Used as a stainable antibody label for localisation of antigens by EM.

Grade 1
P006 10mg

Grade 11
P007 100mg
P008 10mg

Phospholipase C

Store below -20°C

Has been found to strip lanthanum staining material from cell surfaces.
Lesseps, J. cell Biol., 34, 173 (1967)

P009 10mg

Pronase

Store @ 4°C

(Streptomyces griseus) A wide spectrum proteolytic enzyme which has been used for the digestion of protein from ultrathin GMA or TAAB 812 resin sections.
Activity 47000 PUK units/g.

P020 1g

Ribonuclease 1

Store -18°C

(Bovine pancreas) 4 x cryst. Salt-free,specific digestive enzyme for RNA.
Activity 40 Kunitz units/mg.

R001 500mg
R002 100mg

Trypsin

Store @ 4°C

(Beef pancreas) Salt-free, freeze dried powder from 1x cryst. Trypsin,Proteolytic enzyme.
Activity not less than 2500 NF units/mg.

T020 1g

Enzyme Activators

Cobalt Chloride

C010 100g

Magnesium Chloride EM

M001 100g

Manganese Chloride EM

M004 100g

Enzyme Substrates for EM Staining

s-Acetyl Coenzyme A

Store below -20°C

(Acetyl CoA) Used as a substrate for ultrastructural localisation of carnitine acetyltransferase.
Higgins & Barnett, J. Cell Sci., 6, 29 (1970)

A002 5mg

Acetylthiocholine Iodine

Store below -4°C

Substrate for cholinesterase.
Karnovsky,J. Cell biol., 23, 217 (1964)
Koelle & Gromadski, J. Histochem,Cytochem., 14, 443 (1966)
Eranko et al., J. Histochem, Cytochem., 15, 674 (1967)
Davis & Koelle, J.Cell Biol., 34, 157 (1967)

A004 5g
A005 1g

Adenosine-5'-Monophosphate

Disodium salt, purity 98%. Substrate for 5'nucleotides.

A008 1g

Adenosine-5'-Triphosphate

Store below -20°C

Disodium salt, purity 98%. Substrate for adenosine triphosphatase.

A009 1g

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Butyrylthiocholine Iodine

Substrate for cholinesterase

B017	5g
B018	1g

Cytidine-5'-Monophosphate

Disodium salt, purity 100% approx.
Substrate for acid phosphatase and 5'-nucleotidase.

C018	1g

Glucose-6'-Phosphate

Store 4°C

Disodium salt, purity 98%.
Used for the EM localisation of glucose-6-phosphatases in glutaraldehyde fixed tissues.
Tice & Barrnett, J. Histochem. Cytochem., 10, 754 (1962)

G007	1g

Indoxyl Acetate

Used in an EM staining method in conjunction with pararosaniline HCl for esterase localisation.
Holt & Hicks, J. Cell Biol., 29, 361 (1966)

I002	5g
I003	1g

Inosine-5'-Diphosphate

Store @4°C

Disodium salt, purity 98% minimum. Substrate for inosine disphosphatase.

I004	100mg
I005	25mg

Nitrocatechol Sulphate

Store @ 4°C

Dipotassium salt. Used for the EM localisation of aryl sulphatase activity.
Goldfischer, J. Histochem., 13, 520 (1965)

N003	1g
N004	100mg

Nitrophenyl Sulphate

Store 4°C

Potassium salt, substrate for sulphatase.

N005	1g
N006	100mg

Sodium Glutamate

Substrate for glutamic dehydrogenase.

S013	100g

Sodium β Glycerophosphate EM

Used for the EM localisation of acid and alkaline phosphatases. High purity with an alpha isomer content of less than 0.1%.
Essner & Novikoff, J. Histochem. Cytochem., 8, 318 (1960)
Holt & Hicks, J. Cell Biol., 11, 47 (1961)
Tranzer,J.Microscopie, 4, 409 (1965)
Hugon & Borgers, J. Histochem, Cytochem., 14, 629 (1966)

S014	100g
S015	50g
S016	25g

Sodium Hydrogen Maleate

Substrate for malic dehydrogenase.

S017	100g

Sodium Succinate

Hexahydrate. Substrate for succinic dehydrogenase.
Purity >99%

S021	100g

Thiamine Pyrophosphate Chloride

Store @ 4°C

Cocarboxylase, for the EM demonstration of nucleoside phosphatases in the Golgi apparatus of cells. Purity 99% Novikoff & Goldfischer, Proc.Natn.Acad. Sci., 47, 802 (1961)

T007 5g
T008 1g

Enzyme & Metabolic Inhibitors

p-Chloromercuribenzoic Acid

C008 5g

Cyclohexamide

Inhibitor of protein synthesis at peptide elongation stage of translation.
See Jamieson & Palade, J. Cell Biol., 39, 580 (1968) for use in studying transport of secretory proteins in pancreas.

C017 1g

n-Ethylmaleimide

E014 5g

Iodoacetamide

I006 10g

Iodoacetic Acid

I007 25g

Mitomycin C

Antitumour antibiotic which is believed to cross-link complementary strands of DNA. Produces changes in nucleolar fine structure in cultured cells similar to those caused by actinomycin-D.
Lapis & Bernard, Cancer Res., 25, 628 (1965)

M009 2mg

Puromycin

Store @ 4°C

Rapidly inhibits protein synthesis by forming a complex with nascent protein at the ribosomal level. It has been used in studies of ACTH-induced ultrastructal transformation of mitochrondria of rat adrenal cortex cells.
Kahri, J. Cell Biol., 36, 181 (1968)

P022 10mg

Sodium Azide

S026 25g

Sodium Fluoride

S012 100g

Acceptors for Oxidative Enzymes

DL-Carnitine HCl

F.W. 197.66 Hygroscopic.

C006 25g

3,3'-Diaminobenzidine tetra – HCl

Used as acceptor in ultrastructural staining methods for localisation of peroxidase, catalase and other oxidases.
Graham & Karnovsky, J. Histochem., 14, 291 (1965)
Seligman et al., J. Cell biol., 38, 1 (1968)
Fahimi, J. Cell Biol., 43, 275 (1969)
Novikoff & Goldfischer, J. Histochem, Cytochem., 17, 675 (1969)
Beard & Novikoff, J. Cell Biol., 42, 501 (1969)
Strum & Karnovsky, J. Cell Biol., 44, 655 (1970)
Hanker & Romanovicz, Science 197, 895 (1977)
Anderson, J. Histochem. Cytochem., 20, 672 (1972)

D008 5g
D009 1g

Phone: +44 (0) 118 981 7775 Fax: +44 (0) 118 981 7881 E-mail: sales@taab.co.uk

3,3'-Diaminobenzidine tetra – HCl

Tablets

Each tablet 10mg

Store -18°C

D040 25 tablets

Nitro BT- EM grade

Nitro Blue Tetrazolium. M.W. 817.6
A substrate for dehydrogenases and other peroxidases.

Store 0 to 4°C

N002 250mg

Tablets

Store 0 to4°C Each tablet 10mg. Solubility (one tablet in 1ml of water)

N022 10 tablets

3,3',5,5'-Tetramethyl Benzidine

$C_{16}H_{20}N_2$ M.W. 240.35
Reported to be a non-carcinogenic substitute for 3,3'-Diaminobenzidine HCl. Used as a sensitive and specific reagent for the detection of blood.
J.Histochem. Cytochem., 26, 106 (1978)
Boss, E.S., et al., Assay of peroxidases. J. of Immunoassay, 2, 187 (1981)
Standefer & Vanderjagt. Assay of haemoglobin. Clin. Chem., 23, 749 (1977)

T215 5g
T216 1g

Tetranitro BT- EM grade

T005 250mg
T006 100mg

Azo-Dye Coupling Agents

p-Acetoxymercurianiline

p-Aminophenylmercuric acetate. When diazotised used as a coupling agent for both light and electron microscopic localization of B-glucuronidase and acid phosphatases.
Smith & Fishman, J. Histochem. Cytochem., 17, 1 (1969)

A001 10g

Pararosaniline HCl EM

When converted to its hexazonium derivative by nitrous acid as a coupling agent for ultrastructural localization of esterases.
Lehrer & ornstein, J. Biophys. Biochem. Cytol., 6, 399 (1959)
Holt & Hicks, J. Cell Biol., 29, 361 (1966)

P002 5g
P003 1g

Markers for Cell Surface Studies and Intercellular Spaces

Concanavalin A

Store @ 4°C Used in conjunction with peroxidase for labelling X-D-glucosyl and stearically related residues at the cell surface.
Bernard & Avrameas, Expl. Cell Res.,64, 232 (1971)

C015 100mg

Cytochrome C

Store -18°C (horse heart) purity 95% approx.
A small molecular weight protein for use as an ultrastructural tracer. Also used in the Kleinschmidt technique for preparing isolated DNA molecules for electron microscopy.
Karnovsky & Rice, J. Histochem. Cytochem., 17, 751 (1969)
Freifelder & Kleinschmidt, J. Molec. Biol., 14, 271 (1965)

C019 100mg
C020 25mg

Ferritin, cadmium free, 6x cryst.

Store 4°C Used to label antigens for localisation of antibodies by EM. Also used as a marker for pinocytoses and transcellular transport. It has also been attached to membranes for freeze-etching studies.
Duc-Nguyan et al., Virology, 28, 404 (1966)
Sternberger, J. Histochem, Cytochem, 15, 139 (1967)
Levinthal et al., In. J. Cancer, 2, 85 (1967)
J. Exp. Med., 116, 423 (1962)
Danon et al., J. Ultrastruct. Res., 38, 500 (1972)
Also used as a marker for pinocytosis and transcellular transport.
Farquar & Palade, J. Exp. Med., 114, 699 (1961)
Bruns & Palade, J. cell biol., 37, 277 (1968)
Smith et al., J. Morph., 127, 41 (1969)
Clementi & Palade, J. Cell Biol., 41, 33 (1969)
For attaching to membranes for freeze-etching studies.
De Silva & Branton, J. Cell Biol., 45, 598 (1970)

F002 100mg