

# Biochemical reagents on tap

Research supplies are in need of restocking and the necessary items may include factor Xa, D-amino acids, trichostatin A, scyllo-inositol, or selected antibodies and labelling reagents.

## Proteins and peptides

From Cambio

*New additions to the company's range of proteins and peptides*

New additions include the HIV gag, nef, env, p24 and gp120 proteins, recombinant peptides from the herpes NS3 and NS4 proteins, the hepatitis C virus-core protein and several new FAS antigen reagents. All the new antibodies are available unmodified, or with a range of biotin, FITC or rhodamine labels. The company offers hundreds of antibodies against many pathogens and proteins, mycobacteria, *Chlamydia*, TIMP, collagenase, acholeplasma, CFTR and huntingtin, to name a few. All antibodies have a stated purity of at least 95 per cent.

**Reader Enquiry No. 100**

## Trichostatin A

From Wako BioProducts

*This is a specific inhibitor for histone deacetylation — now available in a 1-mg vial*

This antimitotic drug is known to arrest mitosis of animal cells at G1 and G2, says Wako. At relatively low concentrations, the drug inhibits the deacetylation of histone and is useful for verifying the regulation of chromatin structure relative to cellular dynamics. Also offered by Wako are synthetic retinoids for biochemistry research (Am80, Am580, Re80, Ch55 and LE540). These synthetic retinoids should find use in the study of the signal transduction system that uses retinoid receptors. Retinoids and retinoic acid are also involved in cell differentiation, proliferation and embryonic development in vertebrates.

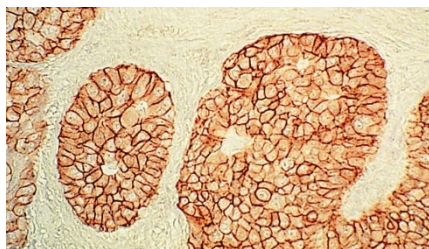
**Reader Enquiry No. 101**

## mAb to c-erbB-2 external domain

From Zymed

*TAB250 mouse monoclonal antibody to the extracellular domain of the c-erbB-2 protein*

The extracellular domain is also recognized by Herceptin, a humanized anti-c-erbB-2 mAb in clinical trials for breast cancer therapy. TAB250 produces vivid plasma membrane-associated staining with formalin-fixed, paraffin-embedded or frozen tissue sections, without the need for tissue pretreatment with heat or enzymes. TAB250 has proven useful in clinical research studies and is now available in a prediluted format for manual and automated immunostaining. The c-erbB-2 oncogene is amplified and over-expressed in as many as 30 per cent of



Zymed's mouse c-erbB-2 mAb (external domain).

breast cancers. Several studies correlate c-erbB-2 over-expression with tumour aggressiveness, poor response to endocrine-related therapy and a poor prognosis.

**Reader Enquiry No. 102**

## Splitmix

From Biomedica

*A non-enzymatic cell disruption reagent available in the UK through Autogen Bioclear*

This reagent can be used for the disruption of cell monolayers as an alternative to trypsin. Splitmix is of plant origin and its gentle non-enzymatic cell detachment minimizes cell damage, which is in contrast to trypsinization, says Biomedica. It is prepared in PBS solution without calcium and magnesium, and is available in two concentrations ( $8 \text{ g l}^{-1}$  and  $14 \text{ g l}^{-1}$ ).

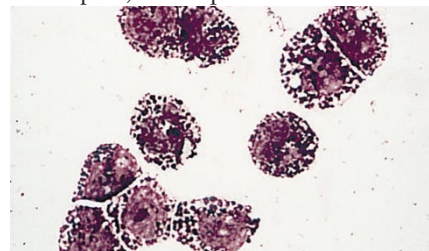
**Reader Enquiry No. 103**

## StemSep basophils enrichment

From StemCell

*An immunomagnetic system for the isolation of human basophils from peripheral blood*

The procedure is said to be rapid and simple, with an average stated recovery of 87 per cent IgE<sup>+</sup> cells. The purified basophils are not labelled with antibody and are well suited for the study of basophil activation. This negative selection system captures unwanted cells, and the desired cells flow through the magnetic column. For the enrichment of basophils from human peripheral blood, a depletion cocktail of antibodies to haematopoietic lineage markers is provided (these are not found on basophils). It is important to note that this



StemCell enriches basophils with magnetism.

cocktail will not remove mast cells. Both basophils and mast cells are enriched; however, adherent, damaged, or dead cells are automatically removed. In addition, column capacities range from  $2 \times 10^7$  to  $1.5 \times 10^9$  nucleated cells.

**Reader Enquiry No. 104**

## Factor Xa

From Enzyme Research Laboratories

*A common molecule to both the intrinsic and extrinsic clotting systems, which plays an important role in blood coagulation*

Purified human and bovine factor Xa is now readily available in quantities and specifications to suit research requirements. In addition, the company provides a number of coagulation reagents to scientists involved in thrombosis and haemostasis research, including purified coagulation factors, antibodies to coagulation factors and purified antibodies for ELISAs.

**Reader Enquiry No. 105**

## D-phenylalanine and D-tyrosine

From NSC Technologies

*D-amino acid transaminase is used to produce these enantiomers on a multi-tonne scale*

Drawing on the L-phenylalanine fermentation process, the new process was evolved in response to increasing demand from the pharmaceutical industry. According to the manufacturer, D-phenylalanine and D-tyrosine are currently used as intermediates in a wide range of drugs.

**Reader Enquiry No. 106**

## Chemokine reagents

From Serotec

*A side range of antibodies and recombinant proteins: human, rodent and ovine*

Serotec offers human, mouse, rat and sheep chemokines, chemokine receptor monoclonal antibodies, polyclonal antibodies and recombinant proteins. Applications for these reagents include flow cytometry, immunocytochemistry, ELISA, western blotting, immunoprecipitation and functional assays.

**Reader Enquiry No. 107**

## What's in a label

### Fluorochrome conjugated antibodies

From Miltenyi Biotec

*Various FITC- or PE-conjugated antibodies*

Developed for the convenient evaluation of MACS magnetic cell separations, these anti-

bodies can also be used for staining unseparated cells. According to the manufacturer, they are well suited for flow cytometric or fluorescent microscopic analysis, even of large cell numbers. The ready-to-use fluorochrome conjugated antibodies are optimized for 100 tests of up to  $10^7$  cells. The specificity of the antibodies is said to provide excellent results for the identification and enumeration of individual cell types.  
**Reader Enquiry No. 108**

**Phycobilisome-labelled reagents**

From KPL

*A new line of streptavidin reagents labelled with PBXL-1 and PBXL-3*

These reagents exhibit a large Stokes shift with red fluorescence, and they are said to eliminate the need for substrates by offering direct fluorescent labelling. The dye complex consists of B-phycoerythrin, R-phycoyanin and allophycocyanin, which can be used with ELISA, western blotting, DNA arrays, fluorescence microscopy and flow cytometry.  
**Reader Enquiry No. 109**

**Immunosubstrates**

From Bio FX

*New non-hazardous immunosubstrate formulations for TMB, ABTS and BCIP/NBT*

These substrate formulations are for use with peroxidase (TMB, ABTS) and alkaline phosphatase (BCIP) enzyme conjugates and have been developed to provide improvements in sensitivity, as well as the stability of one-component products. The system is said to have ultra low background absorbance combined with the increased sensitivity, improving the signal-to-noise ratio. The production protocols use buffers that are said to improve lot-to-lot consistency. Moreover, stability and functionality is accomplished without the use of polar aprotic solvents, thus reduces the biohazard risks normally associated with immunosubstrates. These substrates come ready-to-use and packaged to specific needs.  
**Reader Enquiry No. 110**

**PtdIns (3,4,5)-P<sub>3</sub>**

From Alexis

*A key second messenger in cell regulation*

This new synthetic phosphatidylinositol 3,4,5-triphosphate is believed to be identical to naturally occurring compounds. It is not an analogue containing only saturated fatty acid residues. Moreover, this material displays significantly greater biological activity than such saturated analogues, says Alexis.  
**Reader Enquiry No. 111**

**Receptors and reagents**

From Research Biochemicals and Semat

*A range of receptors, receptor antagonists, receptor antibodies and inhibitors*

Products introduced during the last year include a standard, selective D<sub>1</sub> antagonist SCH 23390 hydrochloride; a selective, competitive and orally active GABA<sub>B</sub> SCH50911; and hydroxylamine hydrochloride, a cell permeable catalase-dependent NO precursor (the use of which as an NO source mimics more closely the events following an increase in intracellular NO production).  
**Reader Enquiry No. 112**

**Signal transduction lipids**

From Sigma

*Inositol phosphates (IP) and other bioactive lipids for signal transduction research*

A broad selection of lipids for use in signal transduction research is available, including over 30 myo-inositol derivatives, such as IP<sub>4</sub>, inositol 1,4,5-phosphate, scyllo-inositol (DTLET), and other myo-inositol phosphate isomers. These lipids meet the company's quality control and purity requirements, and are backed with comprehensive technical support. Package for laboratory and manufacturing use are available.  
**Reader Enquiry No. 113**

*These notes are compiled by Brendan Horton from information provided by the manufacturers. For more details, fill in the reader service card bound inside the journal.*

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