H10E

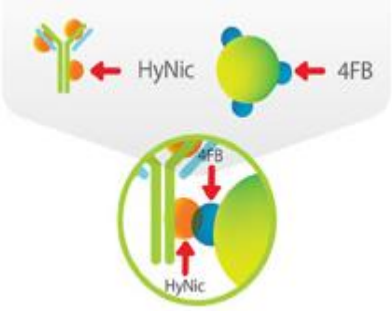
Innovative conjugation & labeling solutions / biochemistry methods and reagents from Interchim

CHEMISTRIES | FUNCTIONALIZATION | NANOMATERIALS | LABELING

- **Hydrazone Chemistry reagents** (HyNic/4FB) (PH)

• Bio-Orthogonal
• Controllable activation: UV-traceable
• Stable activation: flexible

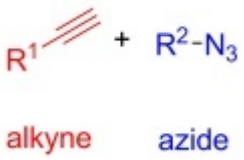
Uses HyNic ligators and aldehyde ligators, to activate i.e. amines (SANH), or nucleic acids (with amidite-Alkynes). HyNic and Aldehyde groups react to form a stable hydrazine bond, in bioorthogonal and highly specific way.



- **Standard Click Chemistry reagents** (PH)

• Chemoselective

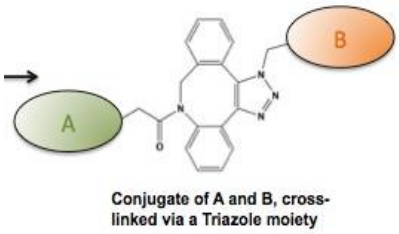
Uses alkyne ligators and azide ligators, to activate i.e. amines (ZL5530 & ZL5540), or nucleic acids (with amidite-Alkynes). Alkyne and Azide react in presence of Copper(II)-TBTA complex FY2780 , in bioorthogonal and highly specific way



- **Copper-free Click Chemistry reagents** (DBCO reagents) (PH)

• DBCO reagents make easier Click reactions
• no more need catalyzer!
• no toxic by-products

Use cyclooctynes ligators (DBCO) and azide ligators, to activate i.e. amines or other biomolecules. DBCO and azide partners react directly (SPAAC reaction), in bioorthogonal and highly specific way.

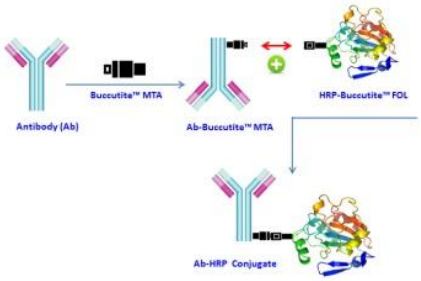


- **Readilink Rapid Protein Labeling Kits** (Buccutite based) (PH)

• Click-chemistry like base technology (use Buccutite-FOL/MTA reagents)
• Selective – easy (no final desalting step) 1+1/2hr procedure
• Available with mFluor dyes for FCM, iFLuor dyes, APC, APC-Cy5.5 Tandem, PE-Cy5 Tandem, PE-Cy5.5 Tandem, PE-Texas Red Tandem, trFluor™ Eu & Tb, HRP, Proteins conjugation.

Use Baccutite FOL/MTA reagents as partners for a highly specific reaction.

Also ReadiLink Kits using SE method, available with more labels



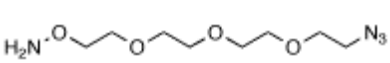
- **Staudinger Chemistry** (TriArylPhosphine reagents) (PH)

• Chemoselective
• not toxic
• ideal for In-vivo and metabolic labelings

Use an appropriate substituted triaryl phosphine and an azide to form an amide bond. The reaction is bioorthogonal and highly specific, at room temperature and physiological pH and a catalyst is not required.

- **Oxime chemistry**: **AminoOxy reagents** with PEO spacer (PH) (FT)

• Reaction of AminoOxy and Aldehyde groups
• forms extremely stable Oxime linkage
• PEO spacer features hydrophilicity



- **PEGylation reagents** (conjugation reagents, linkers and building blocks)(PH)

• Length-controllable hydrophilic spacers

PolyEthyleneOxi units (PEO_x) synthetic spacers and PolyEthylenGlycol (PEG) purified polymers (less defined) provide hydrophylic, controllable-length and flexible spacer for crosslinkers, labeling agents and building block for organic synthesis.

- **MultiFunctional Crosslinkers** (unique branched poly-reactive reagents)(PH)

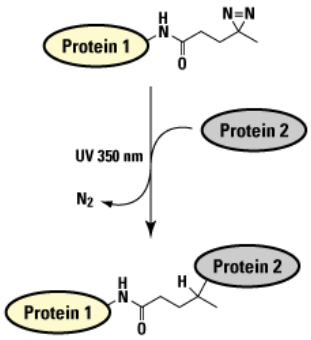
• Branched with 3 to 4 arms, Homo or Multi-functional !

Unique reactive agents with amine- or sulfhydryl reactivities are great solution for preparing multimeric aggregrates of polypeptides or nucleic acids, polymers, multifunctionalized surfaces, …

- **SDA reagents** (Diazirine photo reactions) (PH)

• Superior photo-reactions

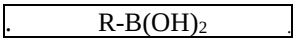
Combine amine-reactivity with an innovative and efficient diazirine-based photoreaction. SDA reagents extend the efficiency and range of interactions that can be explored by standard protein crosslinking techniques. Great for **protein structure** and **protein-protein interactions** studies.



- **Boronic chemistry** (unique tools for carbohydrates) (PH)

• form reversible covalent complexes with sugars, amino acids, hydroxamic acids

Boronic acids apply in fluorescent detection of saccharides, for selective transport of saccharides across membranes, or to block certain proteasomes…, and in organic chemistry as chemical building blocks (i.e. Suzuki coupling, transmetallation).



CHEMISTRIES | *FUNCTIONALIZATION* | NANOMATERIALS | LABELING

- **SulfoLink coupling** (PH)

• Covalent immobilization of sulfhydryl-containing peptides or proteins

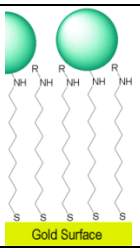
• Ideal for preparing affinity purification supports

- **SAM reagents** (Self-Assembled Monolayers for surface modification) (PH)

• assembly spontaneously on thiol and gold surfaces

• forms uniform uni-directional crystalline chemisorbed layers

• stable organic single layers



- **Chelating** (PH)

Reagents for conjugation of chelating cages

- **Phos-tag** (PH)

Reagent for Phosphorylated molecules MS Analysis

- **Functionnalized MicroPlates** (FT)

96-wells Microplates grafted with Amines, Carboxyls, NHS ester, Maleimide, for biomolecules immobilization

- **Surface Treatment / Silanylisation** (PH):

Siliconizing Fluids for labware treatment (inert)

- **Derivatization** (PH): Acylation, Alkylation, Silylation,

Hydrocarbon and Water-Soluble Siliconizing Fluids for HPLC, GC, MS analysis

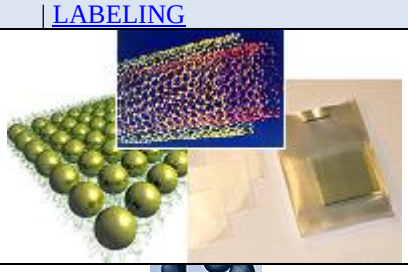
- **SulfoTools chemistry** (SH): The Clean Peptide Technology (CPT) replaces organic solvents completely with water – finally combining sustainability and environment friendly care with cost optimization.

- **Crystalized Cellulose nanomaterials(CNC)** (SH):

The CelluForce Crystalized Cellulose nanomaterials provide unique properties (self-assembly, strenght, Rheology/Thixotropy, Surface functionalization, Colour/photonics, high surface ratio, Electromagnetic.

- **Carbon/Gold/Silver/ITO materials**
  (Carbone NanoTubes, Gold NanoParticules, IndiumTinOxide Slides) (PH)

• State of art nanotubes, nanobeads and Slides
to make functional supports for a variety of applications in biotech and industry (delivery systems, imaging probes, biocaptors, electric devices,…)



- **Carbon Allotropes, Metal and Oxides nanoparticules** (PH)

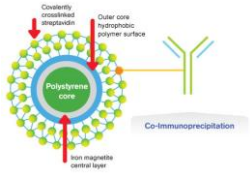
• A variety of nanomaterials for R&D up to industry:
Carbone allotropes (nanotubes, fullerenes, graphite,…), Nanoparticules and nanopowders of metals (Cu, Au, Fe, Ce, Al, Cr, Sn, Pd, Ag, Ni…) and their oxides (incl.TiO2, SiO2), Nitrides, Carbides, Borides, Carbonitrides, Antimonides/stibnides, Arsenides, Nano-&Micro-salts,…

- **SPHERO functionalized PolyStyrene Fluorescent MicroSpheres** (SH)

• Polystyrene microspheres 0.1-44µm, or PMAA
• Activated by Amino, DimethylAmino, Carboxyl,…
for immobilisation of biomolecules by standard chemistries
• fluorescent, paramagnetic

- **NanoLink & MagnaLink beads** (PH)

• Ultra-high binding capacity (>12nmol/mg)
• Functionalized by Amino (for standard chemistry), 4FB (for hydrazone chemistry),
and Streptavidin (coated)



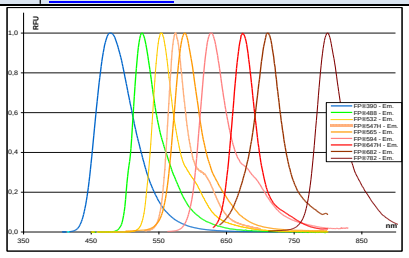
- iColloid

- **Activated reactive Microplates** (FTPH) (FT)

• Polystyrene plate activated by NHS ester or maleimide
• for easy and selective immobilization of biomolecules

- **FluoProbes Labeling reagents** (PH)

• Superior fluorescent dyes, spanning from 390 to 800nm.
• Available with any functional group: COOH, NH2, NHS, Maleimide, Azide, Hydrazide, TFP; Ethynyl,…

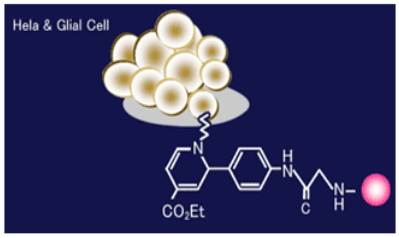


- Other fluorescent dyes:

CYanine dyes Labeling reagents (PH) (incl. sulfo, PEO derivates)
CF dyes Labeling reagents (PH) (incl. AminoOxy derivates)
DyLight dyes Labeling reagents (PH) (incl. AminoOxy derivates)

- **STELLA labeling** (azocycloaddition reactions) (PH)

• High Specificity: reacts only with the lysine residue on the protein surface
• Great for fragile proteins and for cells also! when the function of biomolecules should be preserved (the function often depends on N-end amino group)
• Works down to 10^{-8} M concentration and even lower level !

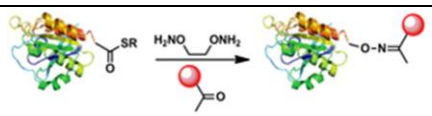


- **FluoLIDS Labeling reagents** (PH)

• Solid-State Fluorescence

- **N- and C-terminal Protein labeling Kits**

site-directed labeling of any protein's • ***C-terminus*** using convenient, fast, mild and biocompatible **oxyamine–ketone ligation** (scheme), and • ***N-terminal cysteine*** using native **thioester ligation** with a fluorophore-. Available as Pot Dual Color labeling kit for fluorescence resonance energy transfer (FRET) studies
See presentation[PH-BB090a]; Prices and technical sheet. (J)



Related products lines

Interbiotech - BioSciences innovation – proposes a complete range of products for protein biochemistry.

More Biochemistry reagents: crosslinkers & modifiers; biotinylation, fluorescent labeling, labeling kits
Desalting & Biopurifications: Desalting tools (CelluSep tubings, SpectraPor tubings, GebaFlex, FloatALyser, SlideALyser,...)

Products HighLights Overview & BioScience Innovation catalog

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Reply by Fax : +33 (0) 4 70 03 82 60 or email at interbiotech@interchim.com

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_____

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