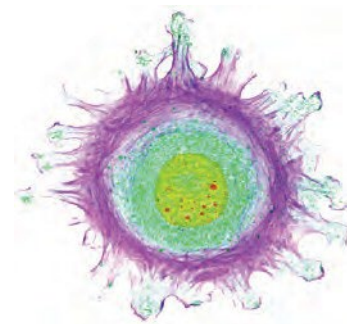




Custom Conjugation Services

Advantages of Working with Columbia Biosciences

- Wide range of experience including fluorescent dyes, enzymes, proteins, haptens, and PEG
- Flexible - we provide conjugation services for both research and commercial applications
- Rapid turnaround - 10-14 days, expedited 7-day service also available
- Expert team - over 20 years of antibody and protein conjugation experience
- Certificate of Analysis for every conjugate includes concentration, F/P ratio and fluorometry
- Scale up capabilities - microgram to gram scale



Functional Target Possibilities

- Immunoconjugates (Whole and Reduced IgG)
- Proteins/Peptides
- Nucleic Acids
- Small Molecules (Fluorescent Dyes, Biotin)
- Microparticles
- Functionalized Polymers

Examples of Available Conjugation Chemistries

Targeted Groups:

- Amines (Succinimidyl ester, Isothiocyanate)
- Carboxylic acids (Carbodiimides)
- Thiols (Maleimides, Haloacetimides)
- Aldehydes (Hydrazines/Hydrazides, Reductive Amination)
- Carbohydrates
- Bioorthogonal (Azide-Alkyne, CuAAC and SPAAC)

Examples of Common Conjugation Partners

Fluorophores:

- APC
- R-PE
- PerCP
- PerCP Cyanine 5.5
- FITC

- SureLight® 488
- Alexa Fluor® Dyes
- DyLight® Dyes
- Europium/Terbium
- Pacific Blue

Small Molecules:

- Biotin
- DNP
- DIG
- PEG(s)
- MSD Gold™ Sulfo-Tag

Proteins:

- Horseradish Peroxidase (HRP)
- Alkaline Phosphatase (AP)
- Streptavidin

To request a quote visit:
www.customconjugation.com
and fill out the labeling request form

Contact Us to Discuss your Custom Conjugation Project

- Sales inquiries: sales@columbiabiosciences.com • Technical inquiries: info@columbiabiosciences.com
- phone: 301-732-5415 • www.customconjugation.com • Frederick, Maryland



Protein and Conjugate Characterization

Services for *Physical* Characterization of Proteins and Conjugates

- Chromatography
 - Size - FPLC/HPLC SEC
 - Degree of Labeling - UV-Vis HIC
- Degree of Labeling by Assay
- Electrophoresis
 - Size - SDS/Native PAGE
 - pI - Isoelectric Focusing PAGE
- Protein Quantitation Assay
 - BCA, Lowry, Bradford, Fluorescence
- Biotin Incorporation
- Endotoxin Testing and Removal

Services for *Functional* Characterization of Proteins and Conjugates

- Cell surface binding assay (with determination of receptor density and binding affinity)
- Bispecific antibody occupancy assay
- Bound protein/Ab Internalization
- Cell adhesion assay
- Cell proliferation assay
- Cell viability (direct killing assays)
- Complement-mediated cytotoxicity
- NK-mediated killing (direct or antibody dependent)
- T cell mediated cytotoxicity
- B and/or T cell proliferation
- Influence of target proteins on cytokines/chemokines production
- Custom cell-based assay development

Additional Services

- Characterization of protein-protein interaction (TR-FRET, ELISA or Western)
- ISO-regulated conjugation/protein production

To request a quote for Assay Services, visit:

www.customassay.com

and fill out the form

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