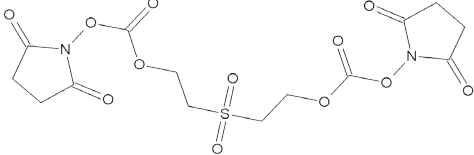
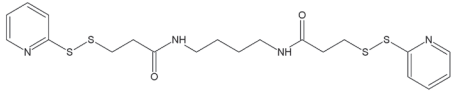
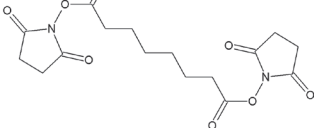
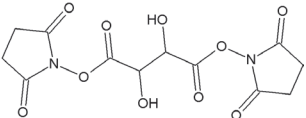
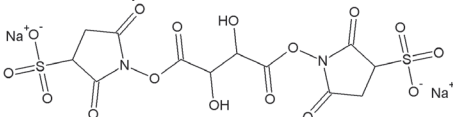
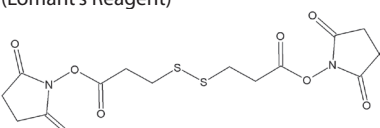
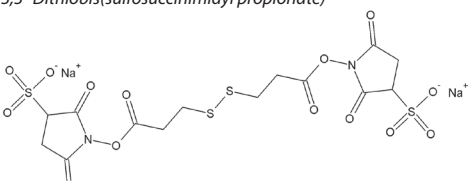
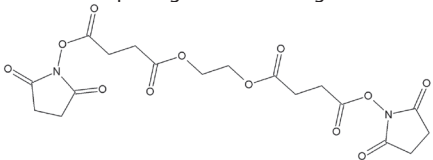


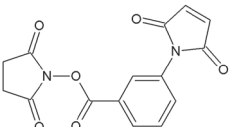
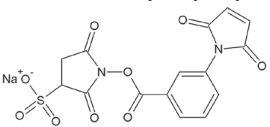
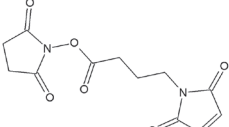
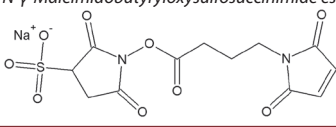
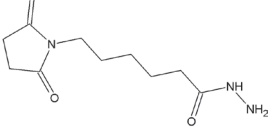
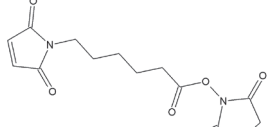
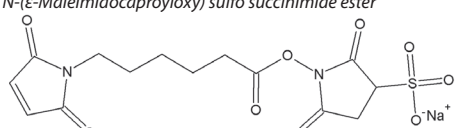


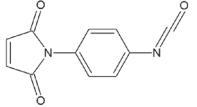
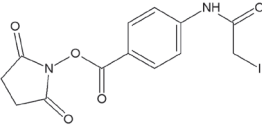
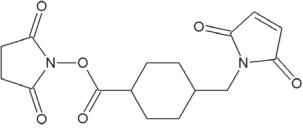
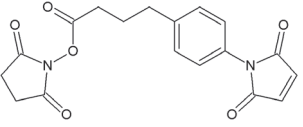
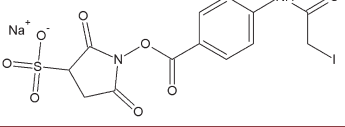
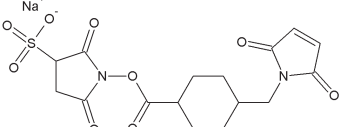
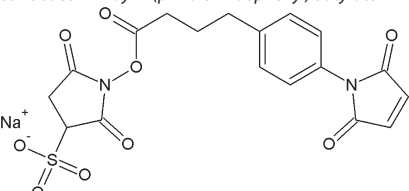
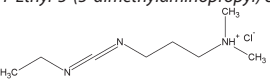
Protein Cross Linker Selection Guide

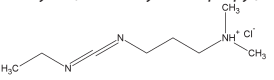
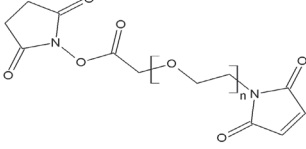
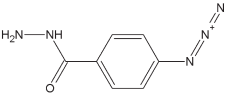
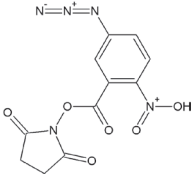
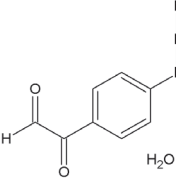
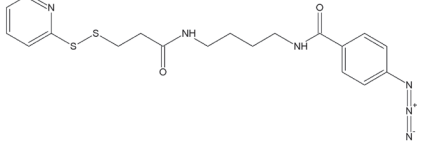
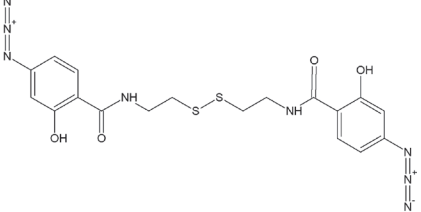
Cat. #	Cross Linking Reagent	Quantity Supplied	Molecular Weight	Spacer Arm (Å)	Reactive Toward	Membrane Permeable	Water Soluble	Cleavable/Reversible
HOMOBIFUNCTIONAL CROSS LINKERS								
82022-770	BSOCOES (Bis(2-[Succinimidooxycarbonyloxy]ethyl) sulfone) 	100mg	436.35	13	Primary Amines	YES	NO	Base
82022-774	DPDPB 1,4-Di-(3'-[2'pyridyldithio]-propionamido) butane 	100mg	482.71	19.9	Sulfhydryls	nd	NO	Reducing Agents (Thiols)
82022-776	DSS Disuccinimidyl suberate Ideal for receptor ligand crosslinking 	1g	368.4	11.4	Primary Amines	YES	NO	NO
82022-778	DST Disuccinimidyl tartrate 	1g	344.24	6.4	Primary Amines	YES	NO	Oxidizing Agents (Periodate)
82022-780	Sulfo DST Sulfodisuccinimidyl tartrate 	100mg	548.32	6.4	Primary Amines	NO	YES	Oxidizing Agents (Periodate)
82022-782	DSP Dithiobis(succinimidyl propionate) (Lomant's Reagent) 	1g	404.42	12	Primary Amines	YES	NO	Reducing Agents (Thiols)
82022-784	DTSSP 3,3'-Dithiobis(sulfosuccinimidyl propionate) 	100mg	608.51	12	Primary Amines	NO	YES	Reducing Agents (Thiols)

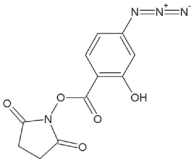
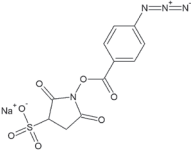
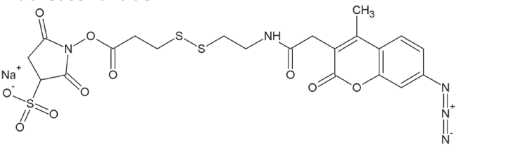
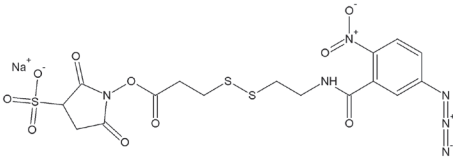
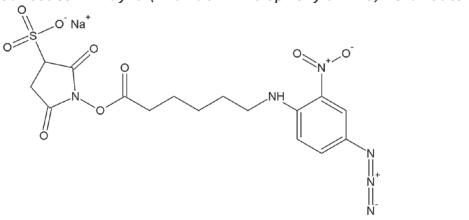
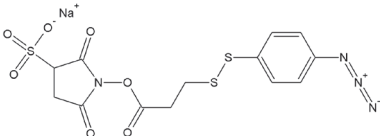
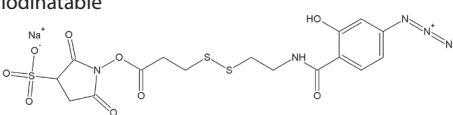
Cat. #	Cross Linking Reagent	Quantity Supplied	Molecular Weight	Spacer Arm (Å)	Reactive Toward	Membrane Permeable	Water Soluble	Cleavable/ Reversible
82022-786	<p>EGS Ethylene glycol bis(succinimidyl succinate) Ideal for receptor ligand crosslinking</p> 	1g	456.36	16.1	Primary Amines	YES	NO	Hydroxylamine

HETEROBIFUNCTIONAL CROSS LINKERS

82022-790	<p>MBS <i>m</i>-Maleimidobenzoyl-<i>N</i>-hydroxysuccinimide ester Ideal for hapten-carrier protein, toxin-antibody, enzyme-antibody crosslinking</p> 	100mg	314.25	9.9	Primary Amine + Sulfhydryl	YES	NO	NO
82022-792	<p>Sulfo MBS <i>m</i>-Maleimidobenzoyl-<i>N</i>-hydroxysulfosuccinimide ester</p> 	100mg	416.30	9.9	Primary Amine + Sulfhydryl	NO	YES	NO
82022-794	<p>GMBS <i>N</i>-γ-Maleimidobutyryloxysuccinimide ester</p> 	100mg	280.23	6.8	Primary Amine + Sulfhydryl	YES	NO	NO
82022-796	<p>Sulfo GMBS <i>N</i>-γ-Maleimidobutyryloxysulfosuccinimide ester</p> 	100mg	382.38	6.8	Primary Amine + Sulfhydryl	NO	YES	NO
82022-798	<p>EMCH <i>N</i>-(ε-Maleimidocaproic acid) hydrazide</p> 	50mg	225.24	11.8	Sulfhydryl + Carbohydrate	nd	NO	NO
82022-800	<p>EMCS <i>N</i>-(ε-Maleimidocaproyloxy) succinimide ester</p> 	100mg	308.29	9.4	Primary Amine + Sulfhydryl	YES	NO	NO
82022-802	<p>Sulfo EMCS <i>N</i>-(ε-Maleimidocaproyloxy) sulfo succinimide ester</p> 	50mg	410.33	9.4	Primary Amine + Sulfhydryl	NO	YES	NO

Cat. #	Cross Linking Reagent	Quantity Supplied	Molecular Weight	Spacer Arm (Å)	Reactive Toward	Membrane Permeable	Water Soluble	Cleavable/ Reversible
82022-804	PMPI <i>N</i> -(<i>p</i> -Maleimidophenyl) isocyanate 	50mg	214.18	8.7	Sulfhydryl + Hydroxyl	nd	NO	NO
82022-806	SIAB <i>N</i> -Succinimidyl(4-iodoacetyl)aminobenzoate Ideal for enzyme-antibody crosslinking 	100mg	402.14	10.6	Primary Amine + Sulfhydryl	YES	NO	NO
82022-808	SMCC Succinimidyl 4-(<i>N</i> -maleimidomethyl) cyclohexane-1-carboxylate Ideal for enzyme-antibody crosslinking 	100mg	334.32	11.6	Primary Amine + Sulfhydryl	YES	NO	NO
82022-810	SMPB Succinimidyl 4-(<i>p</i> -maleimidophenyl) butyrate Ideal for enzyme-antibody crosslinking 	100mg	356.33	11.6	Primary Amine + Sulfhydryl	YES	NO	NO
82022-812	Sulfo SIAB <i>N</i> -Sulfosuccinimidyl(4-iodoacetyl)aminobenzoate 	100mg	504.19	10.6	Primary Amine + Sulfhydryl	NO	YES	NO
82022-814	Sulfo SMCC Sulfosuccinimidyl 4-(<i>N</i> -maleimidomethyl) cyclohexane-1-carboxylate Ideal for enzyme-antibody crosslinking 	100mg	436.37	11.6	Primary Amine + Sulfhydryl	NO	YES	NO
82022-426	OneQuant™ Sulfo SMCC Sulfosuccinimidyl 4-(<i>N</i> -maleimidomethyl) cyclohexane-1-carboxylate Single use vials to minimize waste. No weighing required.	8 x5mg	436.37	11.6	Primary Amine + Sulfhydryl	NO	YES	NO
82022-816	Sulfo SMPB Sulfo succinimidyl 4-(<i>p</i> -maleimidophenyl) butyrate 	100mg	458.38	14.5	Primary Amine + Sulfhydryl	NO	YES	NO
82021-610	EDC 1-Ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride 	1g	191.70	0	Primary Amine + Carboxyl	NO	YES	NO

Cat. #	Cross Linking Reagent	Quantity Supplied	Molecular Weight	Spacer Arm (Å)	Reactive Toward	Membrane Permeable	Water Soluble	Cleavable/ Reversible
95029-294	EDC 1-Ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride 	5g	191.70	0	Primary Amine + Carboxyl	NO	YES	NO
82022-818	MAL-PEG-SCM Maleimide PEG succinimidyl carboxymethyl 	100mg	~3400		Primary Amine + Sulfhydryl	nd	NO	NO
PHOTOREACTIVE CROSS LINKERS								
82022-820	ABH <i>p</i> -Azidobenzoyl Hydrazide 	100mg	177.16	11.9	Carbohydrates	YES	NO	NO
82022-822	ANB-NOS <i>N</i> -5-Azido-2-nitrobenzoyloxysuccinimide Photolysis at 320-350nm 	100mg	305.20	7.7	Primary Amines	YES	NO	Photolysis at 320-350nm
82022-824	APG <i>p</i> -Azidophenyl glyoxal monohydrate 	100mg	193.16	9.3	Arginines	YES	NO	NO
82022-828	APDP <i>N</i> -(4-[<i>p</i> -Azidosalicylamido]butyl)-3'-(2'-pyridyl)dithio propionamidolodinate 	100mg	446.55	21	Sulfhydryl	YES	NO	Reducing Agents (Thiols)
82022-830	BASED Bis(β-[4-azidosalicylamido]-ethyl) disulfidelodinate 	100mg	474.52	21.3	Non Selective	YES	NO	Reducing Agents (Thiols)

Cat. #	Cross Linking Reagent	Quantity Supplied	Molecular Weight	Spacer Arm (Å)	Reactive Toward	Membrane Permeable	Water Soluble	Cleavable/ Reversible
82022-832	NHS-ASA <i>N</i> -Hydroxysuccinimidyl-4-azidosalicylic acid Iodinatable 	100mg	276.21	8.0	Primary Amines	YES	NO	NO
82022-834	Sulfo HSAB <i>N</i> -Hydroxysulfosuccinimidyl-4-azidobenzoate 	100mg	362.25	9.0	Primary Amines	NO	YES	NO
82022-836	Sulfo SAED Sulfosuccinimidyl 2-(7-amino-4-methylcoumarin-3-acetamido)ethyl-1,3-dithiopropionate Fluorescent Label 	50mg	621.6	23.6	Primary Amines	NO	YES	Reducing Agents (Thiols)
82022-838	Sulfo SAND Sulfosuccinimidyl 2-(<i>m</i> -azido- <i>o</i> -nitrobenzamido)-ethyl-1,3'-dithiopropionate 	100mg	570.51	18.5	Primary Amines	NO	YES	Reducing Agents (Thiol)
82022-840	Sulfo SANPAH Sulfosuccinimidyl 6-(4'-azido-2'-nitrophenylamino) hexanoate 	100mg	492.40	18.2	Primary Amines	NO	YES	NO
82022-842	Sulfo SADP Sulfosuccinimidyl (4-azidophenyl)-1,3'- dithiopropionate 	100mg	454.44	13.9	Primary Amines	NO	YES	Reducing Agents (Thiol)
82022-844	Sulfo SASD Sulfosuccinimidyl-2-(<i>p</i> -azidosalicylamido)ethyl-1,3-dithiopropionate Iodinatable 	100mg	541.51	18.9	Primary Amines	NO	YES	Reducing Agents (Thiol)