

MONOMERS FOR OPHTHALMIC APPLICATIONS

Ophthalmic Biomaterials

Biomaterials engineering has been instrumental in advancing ophthalmologic medicine, from conventional strategies for vision correction to innovative treatments for ocular trauma or disease. Interventions often feature highly-engineered medical devices with stringent performance criteria, as with contact and intraocular lenses, tissue scaffolds and hydrogels for sustained drug delivery.

Polysciences' polymer and hydrogel precursors support the development of biocompatible materials with optical, mechanical and surface properties tailored to the demands of specific applications.

State-of-the-Art Custom Synthesis

When your needs require sophisticated formulation or unique chemical modification to enable your differentiated ophthalmic technology – from monomers to polymers and crosslinkers—Polysciences' Custom Synthesis capability is ready to help.

Polysciences has the expertise in organic chemistry, engineering and chemical characterization to develop and synthesize precisely what you need. We are experienced in taking custom development chemistry through to successful scale-up, validation and commercialization. Polysciences' state-of-the-art Custom Synthesis and cGMP manufacturing will give you the confidence of reliable, high quality supply for your most critical chemistry needs.

Polysciences additionally has a vast selection of monomers, polymers and crosslinkers to support varied reactions, chemistries and polymerization modalities. Ultrapure and cGMP grades are also available to meet the most stringent requirements.

Please contact us to see how we can help you meet your latest challenge.



HYDROPHILIC MONOMERS

Catalog #	Product Name	Special Features
04180	Glycerol monomethacrylate, mixture of isomers	isomer mixture, useful in hydrogel preparation, -OH can be functionalized in multiple ways
04675	2-Hydroxyethyl methacrylate, Ophthalmic grade	very hydrophilic monomer, useful in forming hydrogel structures
08242	N-(2-Hydroxypropyl) methacrylamide	hydrophilic monomer building block, can be postreacted through hydroxyl group
00730	Hydroxypropyl methacrylate (mixture of isomers)	hydrophilic monomer building block, can be postreacted through hydroxyl group
16664	Poly(ethylene glycol) monomethylether monomethacrylate	adds hydrophilic grafts to polymers; adds long chain hydrophilic graft to polymer chain
16665	Poly(ethylene glycol) monomethylether mono-methacrylate	hydrophilic macromonomers used to introduce hydrophilic sites into polymers, to stabilize polymer emulsions and in synthesis of comb polymers

IONIC MONOMERS

Catalog #	Product Name	Addl Reactive Funct.	Special Features
21200	N-(3-Aminopropyl) methacrylamide hydrochloride, >98%	primary, HCl salt	Benzophenone a strong UV absorber, potential UV radical initiator
00213	2-(N,N-Dimethylamino) ethyl methacrylate, min. 99%	UV absorbing	homopolymer Tg = 19°C
21002	2-Aminoethyl methacrylate hydrochloride, min. 95%	primary, HCl salt	can be used to prepare polymers with amine functionality

UV ABSORBING ACTIVE MONOMERS

Catalog #	Product Name	Special Features
02642	Phenyl acrylate, min. 95%	UV absorbing - hydrophobic, aromatic building block monomer
23350	4-Methacryloxy-2-hydroxybenzophenone, min. 99%	UV absorber
21871	2-(2'-Methacryloxy 5' methylphenyl) benzotriazole	UV absorber - UV absorbing monomer, may act as polymerizable sensitizer
02092	Cinnamyl methacrylate	photoreactive - Photocrosslinking monomer
02834	2-Phenylethyl acrylate, min. 92%	moderate UV absorbing - hydrophobic, aromatic monomer
02911	2-Phenylethyl methacrylate, min. 92%	moderate UV absorbing - hydrophobic, aromatic monomer
02644	Phenyl methacrylate, >95%	moderate UV absorbing - high Tg, aromatic building block monomer

HIGH / LOW REFRACTIVE INDEX MONOMERS

Catalog #	Product Name	Special Features
24296	Benzyl acrylate ≥ 99.9%	high RI (ca 1.514)
17969	N-Benzylmethacrylamide	high RI (ca 1.60), non-halogenated
02000	Benzyl methacrylate, min. 95%	high RI (ca 1.57), non-halogenated
19226	1H,1H,2H,2H-Heptadecafluorodecyl methacrylate	low RI (ca 1.35), fluorinated
02401	Hexafluoro-iso-propyl methacrylate	low RI (ca 1.38), fluorinated
21045	1H,1H,5H-Octafluoropentyl methacrylate, min. 98%	low RI (ca 1.39), fluorinated
06349	Pentafluorophenyl acrylate	low RI (ca 1.4), fluorinated aromatic
03330	2,4,6-Tribromophenyl acrylate	high RI (ca 1.6), brominated aromatic
01718	2,2,2-Trifluoroethyl acrylate	low RI (ca 1.44), fluorinated aliphatic
02622	2,2,2-Trifluoroethyl methacrylate	low RI (ca 1.41), fluorinated aliphatic

CROSSLINKING MONOMERS

Catalog #	Product Name	Special Features
06389	1,4-Phenylene diacrylate	rigid, aromatic
00669	Poly(ethylene glycol) diacrylate	crosslinking monomer

NEUTRAL HYDROPHOBIC MONOMERS

Catalog #	Product Name	Special Features
02056	Iso-Butyl methacrylate	hydrocarbon building block monomer
00834	Methyl methacrylate, min. 99.5%	versatile building block monomer
23355	N-Octyl methacrylate, 99+%	hydrophobic methacrylate monomer

Other ophthalmic monomers with varying chain lengths and hydrophobicity available upon request.

Order today at Polysciences.com

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