



PRODUCT CATALOGUE 2024

ABOUT US

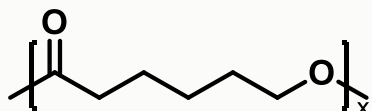
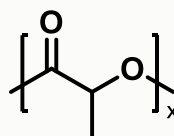
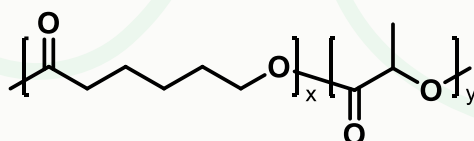
POLIMERBIO is a startup located in San Sebastian and focuses its interest on **biodegradable materials** for application in the medical field and tissue engineering.

With a multidisciplinary team encompassing expertise in organic chemistry, polymer chemistry, chemical engineering, and biology, we specialize in creating **tailored solutions** for your specific requirements. From designing and developing new custom synthetic routes to delivering high-quality results, we are dedicated to meeting the unique needs of our customers.



Biodegradable polymers

Synthesis and development of biodegradable polymers for versatile applications, spanning biomedical engineering, 3D printing, inks, controlled drug release, and electrospinning

**Poly(ϵ -caprolactone) homopolymer****BP 001****CAS: 24980-41-4****M_w: 90 – 200 KDa****Poly(D,L-lactide) homopolymer****BP 002****CAS: 26023-30-3****M_w: 50 – 70 KDa****Poly(D,L-lactide-co- ϵ -caprolactone) copolymer****BP 003 – BP 012****CAS: 70524-20-8****M_w: 60 – 200 KDa**

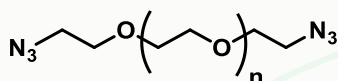
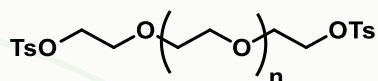
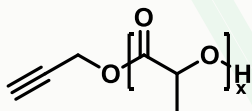
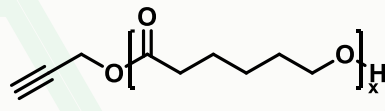
Code	% LA	% CL	Code	% LA	% CL
BP 003	95 – 90 %	5 – 10 %	BP 008	45 – 40 %	55 – 60 %
BP 004	85 – 80 %	15 – 20 %	BP 009	35 – 30 %	65 – 70 %
BP 005	75 – 70 %	25 – 30 %	BP 010	25 – 20 %	75 – 80 %
BP 006	65 – 60 %	35 – 40 %	BP 011	15 – 10 %	85 – 90 %
BP 007	55 – 50 %	45 – 50 %	BP 012	5 %	95 %

DL-LA based copolymer M_w: 60 - 140 kDa ϵ -CL based copolymer M_w: 90 - 200 kDa



Functionalized polymers

Development of functionalized polymers with diverse applications, including advanced materials for sensors, responsive coatings, targeted drug delivery systems, and innovative tissue engineering solutions, among other cutting-edge functionalities

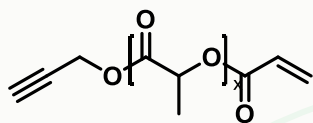
**Azido-ended poly(ethylene glycol)****FN 001** $M_w \approx 8000 \text{ g/mol}$ **Tosyl-ended poly(ethylene glycol)****FN 002** $M_w \approx 8000 \text{ g/mol}$ **Alkyne-initiated poly(D,L-lactide)****FN 003 – FN 005** $M_w : 0.8 - 8 \text{ kDa}$ **Alkyne-initiated poly(ϵ -caprolactone)****FN 006 – FN 008** $M_w : 1 - 10 \text{ kDa}$

Code	% alkyne	M_w (kDa)
FN 003	10 – 30 %	8 – 5
FN 004	40 – 60 %	3 – 2
FN 005	70 - 100 %	1.5 – 0.8

Code	% alkyne	M_w (kDa)
FN 006	10 – 30 %	10 – 7
FN 007	40 – 60 %	5 – 3
FN 008	70 - 100 %	2 – 1



**Alkyne-initiated/acrylate ended
poly(D,L-lactide)**

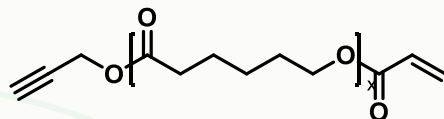


FN 009 – FN 010

M_w : 3 – 16 kDa

Code	% acrylate	M_w (kDa)
FN 009	50 – 80 %	3 – 16
FN 010	80 – 100 %	3 – 16

**Alkyne-initiated/acrylate ended
poly(ϵ -caprolactone)**



FN 011 – FN 012

M_w : 2 – 15 kDa

Code	% acrylate	M_w (kDa)
FN 011	50 – 80 %	2 – 15
FN 012	80 – 100 %	2 – 15

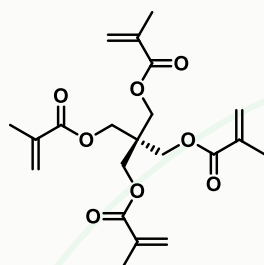


Monomers and initiators

*Innovative monomers and initiators
driving advancements in tailored
materials, responsive structures,
controlled drug release, and applications
in 3D printing and biomedical engineering*



Pentaerythritol tetramethacrylate



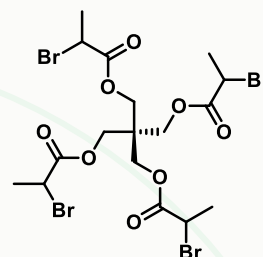
IM 001

CAS: 3253-41-6

C₂₁H₂₈O₈

M_w: 408.45 g/mol

Pentaerythritol tetrakis(2-bromopropionate)



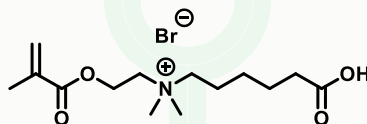
IM 002

CAS: 248603-09-0

C₁₇H₂₄Br₄O₈

M_w: 675.99 g/mol

1-pentanaminium, 5-carboxy-N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl] bromide



IM 003

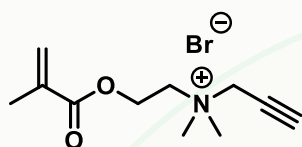
CAS: 2417844-44-9

C₆H₉N₃O₂

M_w: 148.59 g/mol



**2-methacryloxyethyl dimethyl
propargyl ammonium bromide**



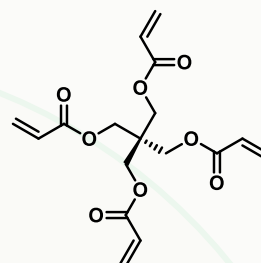
IM 004

CAS: 41514-88-9

C₁₁H₁₈NO₂·Br

M_w: 276.17 g/mol

Pentaerythritol tetraacrylate



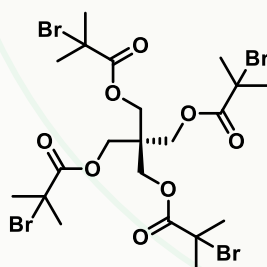
IM 005

CAS: 4986-89-4

C₁₇H₂₀O₈

M_w: 352.34 g/mol

**Pentaerythritol tetrakis(2-
bromoisobutyrate)**



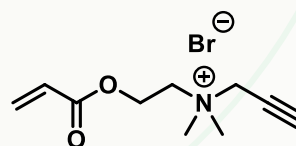
IM 006

CAS: 243991-62-0

C₂₁H₃₂Br₄O₈

M_w: 732.09 g/mol

**2-acryloxyethyl dimethyl propargyl
ammonium bromide**



IM 007

C₁₀H₁₆NO₂·Br

M_w: 262.15 g/mol

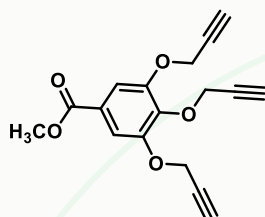


Dendrimers

Dendrimers to revolutionize polymer chemistry, offering precise materials for biomedical breakthroughs in drug delivery, diagnostics, and targeted therapies



Methyl 3,4,5-tris(prop-2-yn-1-yloxy)benzoate



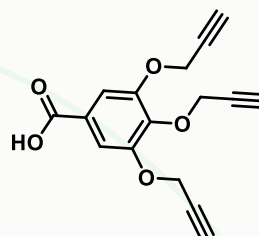
DD 001

CAS: 1155417-73-4

C₁₇H₁₄O₅

M_w: 298.29 g/mol

3,4,5-tris(prop-2-yn-1-yloxy)benzoic acid



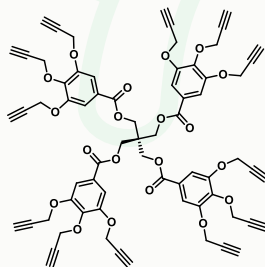
DD 002

CAS: 364320-55-8

C₁₆H₁₂O₅

M_w: 284.27 g/mol

Pentaerythritol tetrakis(methyl 3,4,5-tris(prop-2-yn-1-yloxy)benzoate)



DD 003

C₆₉H₅₂O₂₀

M_w: 1201.16 g/mol



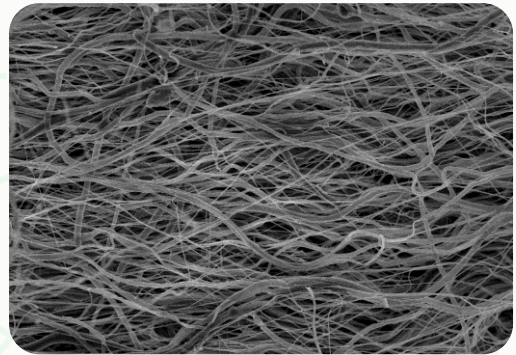
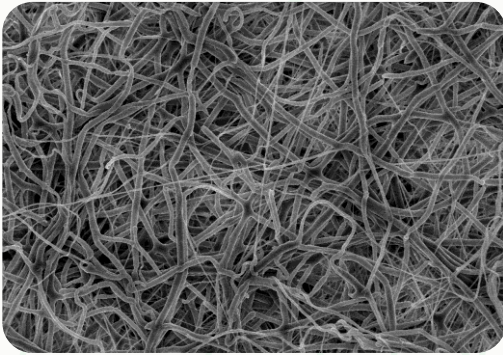
Polymer meshes

*Electrospun polymeric meshes
for cutting-edge biomedical and
tissue engineering solutions*

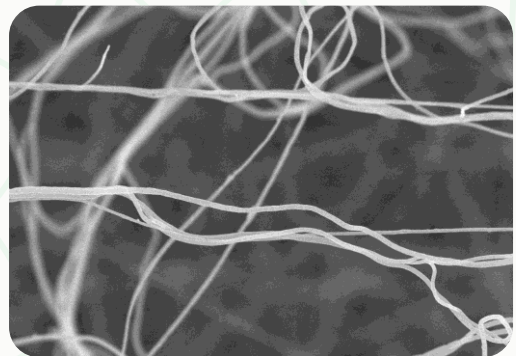
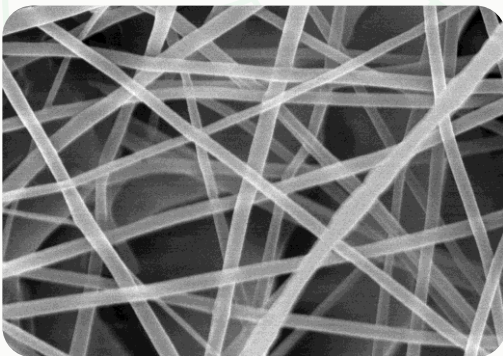


Discover the power of customizable polymeric meshes, adaptable solutions with unlimited applications. From tissue engineering to filtration and sensors, these meshes offer unmatched versatility. Tap into their limitless potential for innovation.

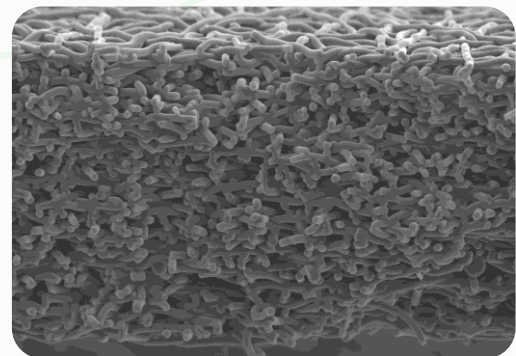
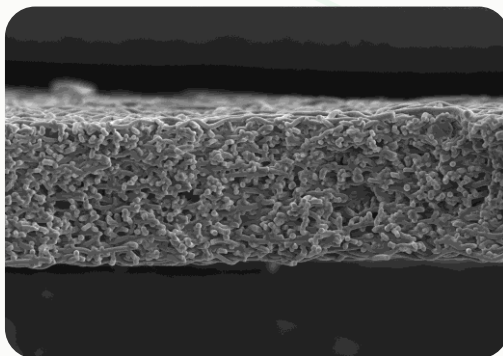
① Randomly distributed or aligned fibers



② Customizable fiber diameter



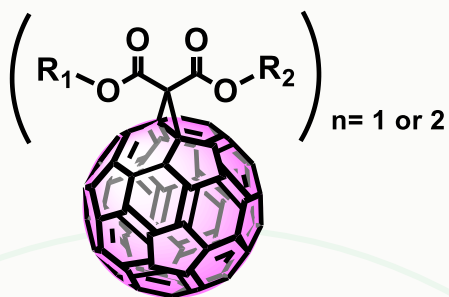
③ Customizable mesh width





Fullerenes

*Fullerenes and its derivatives to drive
innovation in diverse applications, from
advanced materials and
nanotechnology to energy storage and
biomedical breakthroughs*

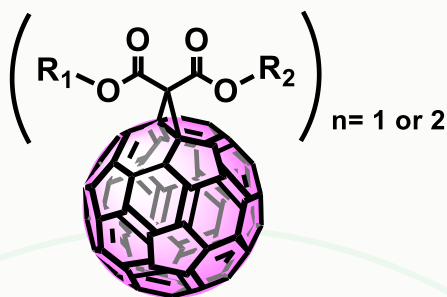
**Bingel-Hirsch adducts****FL 001 – FL 006****M_w: 954.91 – 1933.83 g/mol****MONOADDUCTS (n=1)****BISADDUCTS* (n=2)**

Code	Chemical Formula	M _w (g/mol)	R1 = R2	Code	Chemical Formula	M _w (g/mol)
FL 001	C ₇₃ H ₁₄ O ₄	954.91		FL 001-bis	C ₈₆ H ₂₈ O ₈	1189.16
FL 002	C ₈₃ H ₁₈ O ₆	1111.05		FL 002-bis	C ₁₀₆ H ₃₆ O ₁₂	1501.44
FL 003	C ₈₉ H ₂₂ O ₈	1219.15		FL 003-bis	C ₁₁₈ H ₄₄ O ₁₆	1717.63
FL 004	C ₉₅ H ₂₆ O ₁₀	1327.24		FL 004-bis	C ₁₃₀ H ₅₂ O ₂₀	1933.83
FL 005	C ₇₅ H ₂₄ Br ₂ O ₄	1148.82		FL 005-bis	C ₉₀ H ₄₈ Br ₄ O ₈	1576.98
FL 006	C ₇₅ H ₂₄ N ₆ O ₄	1073.06		FL 006-bis	C ₉₀ H ₄₈ N ₁₂ O ₈	1425.45

*Bisadducts: regioisomer mixture



Bingel-Hirsch adducts



FL 007 – FL 012

M_w: 916.86 – 1485.37 g/mol

MONOADDUCTS (n=1)

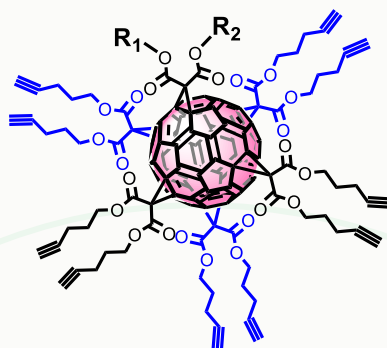
BISADDUCTS* (n=2)

Code	Chemical Formula	M _w (g/mol)	R1	R2	Code	Chemical Formula	M _w (g/mol)
FL 007	C ₇₀ H ₁₂ O ₄	916.86		Et—	FL 007-bis	C ₈₀ H ₂₄ O ₈	1113.06
FL 008	C ₇₅ H ₁₄ O ₅	994.93		Et—	FL 008-bis	C ₉₀ H ₂₈ O ₁₀	1269.20
FL 009	C ₇₈ H ₁₆ O ₆	1048.98		Et—	FL 009-bis	C ₉₆ H ₃₂ O ₁₂	1377.30
FL 010	C ₈₁ H ₁₈ O ₇	1103.01		Et—	FL 010-bis	C ₁₀₂ H ₃₆ O ₁₄	1485.37
FL 011	C ₇₁ H ₁₇ BrO ₄	1013.82	Br—	Et—	FL 011-bis	C ₈₂ H ₃₄ Br ₂ O ₈	1306.97
FL 012	C ₇₁ H ₁₇ N ₃ O ₄	975.93	N ₃ —	Et—	FL 012-bis	C ₈₂ H ₃₄ N ₆ O ₈	1231.21

*Bisadducts: regioisomer mixture

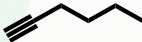
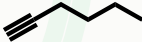



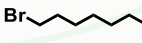
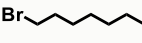
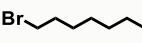


Hexakis-adducts of [60] fullerene



FL 013 – FL 017

M_w : 2126.17 – 2270.49 g/mol

Code	Chemical Formula	M_w (g/mol)	R1	R2
FL 013	$C_{138}H_{84}O_{24}$	2126.17		
FL 014	$C_{144}H_{100}O_{24}Si_2$	2270.49		
FL 015	$C_{139}H_{94}O_{24}Si$	2176.34		Et—
FL 016	$C_{135}H_{94}O_{24}Br_2$	2259.98		
FL 017	$C_{136}H_{87}O_{24}Br$	2185.04		Et—



Fullerene – C₆₀



FN 018

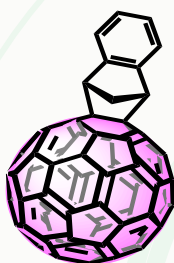
CAS: 99685-96-8

C₆₀

M_w: 720.64 g/mol

Fullerene Derivatives for Photovoltaic Applications

ICMA



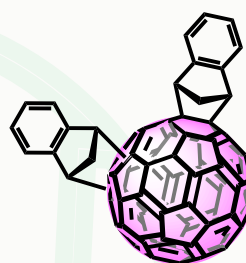
FN 019

CAS: 186682

C₆₉H₈

M_w: 836.82 g/mol

ICBA*



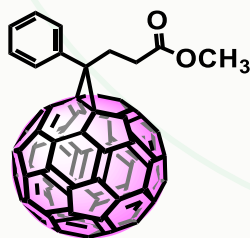
FN 020

CAS: 1207461-57-1

C₇₈H₁₆

M_w: 952.99 g/mol

C₆₀-PCBM



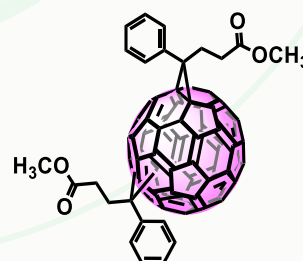
FN 021

CAS: 160848-22-6

C₇₁H₁₂O₂

M_w: 896.88 g/mol

C₆₀-bis-PCBM*



FN 022

CAS: 1048679-01-1

C₈₂H₂₄O₄

M_w: 1073.09 g/mol

*Regioisomer mixture

Contact



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