



Get pure granulocyte subtypes fast and without hassle

Granulocyte research

Granulocytes – the first line of defense against infection

Granulocytes are a subtype of leukocytes comprising basophils, eosinophils, and neutrophils. The cells are characterized by cytoplasmic granules. Granulocytes are formed in the bone marrow and normally reside in the bloodstream. Upon infection the cells migrate from the blood towards sites of inflammation. Effective isolation of viable granulocytes from blood or tissue is a crucial step in many research applications.

MACS® Technology provides various strategies for the isolation of granulocyte subtypes

A wide range of products enables you to isolate all granulocyte subtypes with all the benefits you have come to expect from MACS® Technology: high purity, yield, viability, and simplicity.

- Enrichment or depletion of human or mouse granulocytes using different markers
- Untouched isolation of human neutrophils, basophils, and eosinophils
- Isolation of human granulocytes from whole blood or PMNC-enriched blood preparation

Isolation of human granulocytes

Product	Capacity	Order no.
Basophil Isolation Kit II, human	for 2×10 ⁹ total cells	130-092-662
Diamond Basophil Isolation Kit, human	for 2×10 ⁹ total cells	130-094-434
CD15 MicroBeads, human	for 1×10 ⁹ total cells	130-046-601
CD16 MicroBeads, human	for 2×10 ⁹ total cells	130-045-701
CD33 MicroBeads, human	for 1×10 ⁹ total cells	130-045-501
CD66abce MicroBead Kit, human	for 1×10 ⁹ total cells	130-092-393
Eosinophil Isolation Kit, human	for 1×10 ⁹ total cells	130-092-010
MACSxpress Eosinophil Isolation Kit, human	for 3×30 mL whole blood	130-104-446
MACSxpress Neutrophil Isolation Kit, human	for 5×8 mL whole blood	130-104-434
Whole Blood CD15 MicroBeads, human	for 40 mL whole blood	130-091-058
Whole Blood CD33 MicroBeads, human	for 40 mL whole blood	130-094-773
Whole Blood CD66b MicroBeads, human	for 40 mL whole blood	130-104-913

Isolation of mouse granulocytes

Product	Capacity	Order no.
Anti-Ly-6B.2 (7/4) MicroBeads, mouse	for 2×10 ⁹ total cells	130-100-781
Anti-Ly-6G MicroBead Kit, mouse	for 2×10 ⁹ total cells	130-092-332
Neutrophil Isolation Kit, mouse	for 1×10 ⁹ total cells	130-097-658
Myeloid-Derived Suppressor Cell Isolation Kit, mouse	for 2×10 ⁹ total cells	130-094-538

For each step in your granulocyte research

Miltenyi Biotec offers all the tools you need to support your granulocyte research, from sample preparation and cell enrichment, to analysis.

Start smart with standardized tissue dissociation

High yields of viable cells with preserved epitope integrity are required for your downstream applications. MACS® Tissue Dissociation Kits enable gentle, yet effective, dissociation of various tissue types, including skin and lung.



Figure 1: The gentleMACS™ Dissociators offer fully automated sample dissociation for any tissue type by using established or customized profiles.

MACS Technology for automated granulocyte enrichment

Isolate human granulocytes from whole blood, bone marrow, or dissociated tissue using the fully automated autoMACS® Pro Separator or the MultiMACS™ Cell24 Separator Plus.



Figure 2: The MultiMACS Cell24 Separator Plus and autoMACS Pro Separator enable automated multisample cell separation for reproducible results.

MACSxpress® Technology – the fastest way to get pure granulocytes

MACSxpress® Cell Isolation Kits for eosinophils and neutrophils offer the fastest and most convenient granulocyte isolation procedure available. Purified cells are viable and fully functional – a prerequisite to obtain meaningful data in downstream experiments.

- Cell isolation from whole blood in only 20 minutes
- No density gradient centrifugation
- Excellent purity and viability



Figure 3: With MACSxpress® Technology, untouched human leukocyte subsets can be isolated from whole blood without density gradient centrifugation.

Flow cytometry that's simple and powerful

We provide a broad selection of antibodies against surface markers of human and mouse granulocytes. Create your own antibody panel by using our intuitive panel builder at www.miltenyibiotec.com/panels



Figure 4: MACSQuant® Family of flow cytometers.

► miltenyibiotec.com



Miltenyi Biotec GmbH | Friedrich-Ebert-Straße 68 | 51429 Bergisch Gladbach | Germany | Phone +49 2204 8306-0 | Fax +49 2204 85197
macs@miltenyibiotec.de | www.miltenyibiotec.com

Miltenyi Biotec provides products and services worldwide. Visit www.miltenyibiotec.com/local to find your nearest Miltenyi Biotec contact.

Unless otherwise specifically indicated, Miltenyi Biotec products and services are for research use only and not for therapeutic or diagnostic use. autoMACS, gentleMACS, MACS, MACSQuant, MACSxpress, and MultiMACS are either registered trademarks or trademarks of Miltenyi Biotec GmbH. Copyright © 2014 Miltenyi Biotec GmbH. All rights reserved.