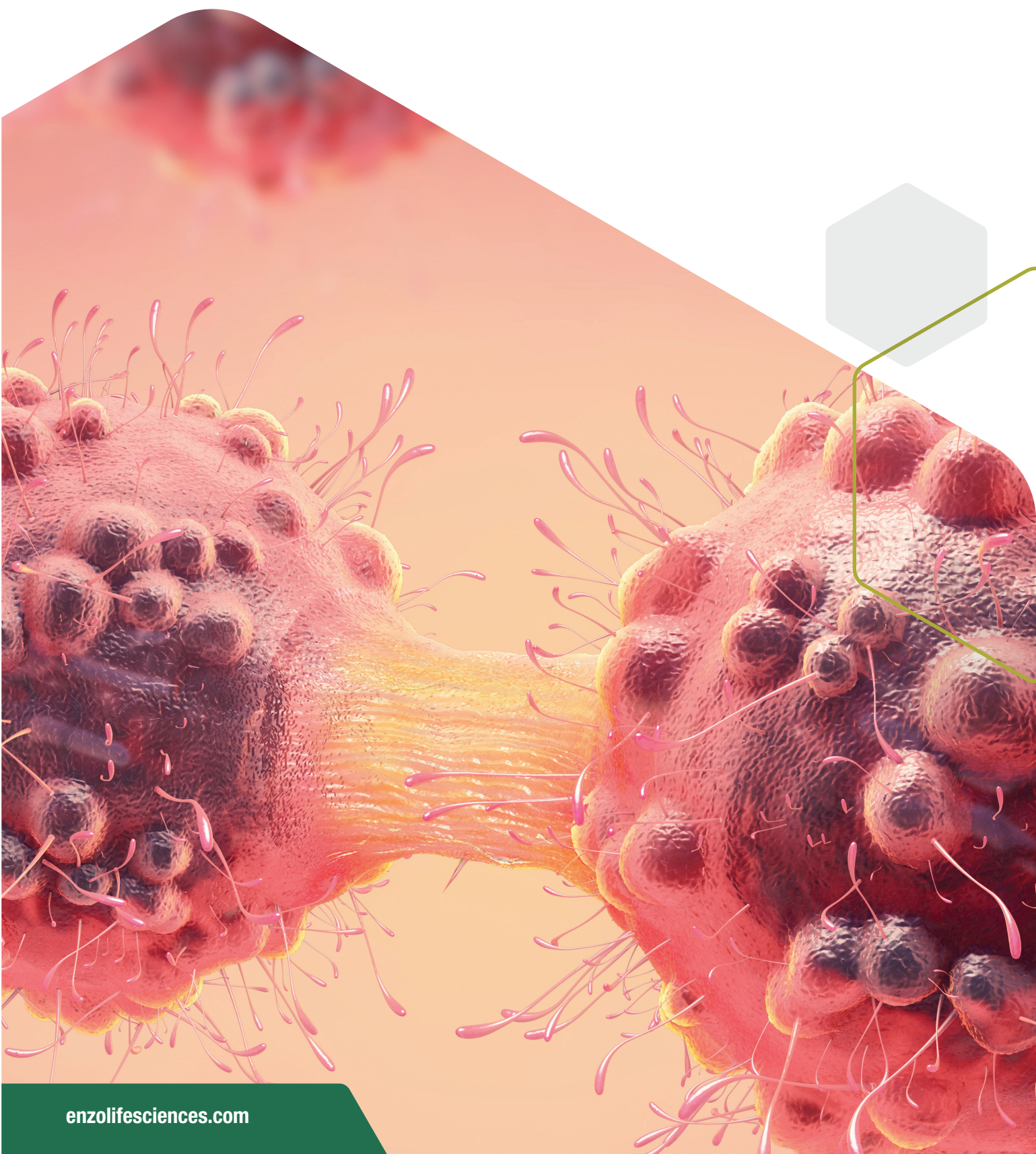




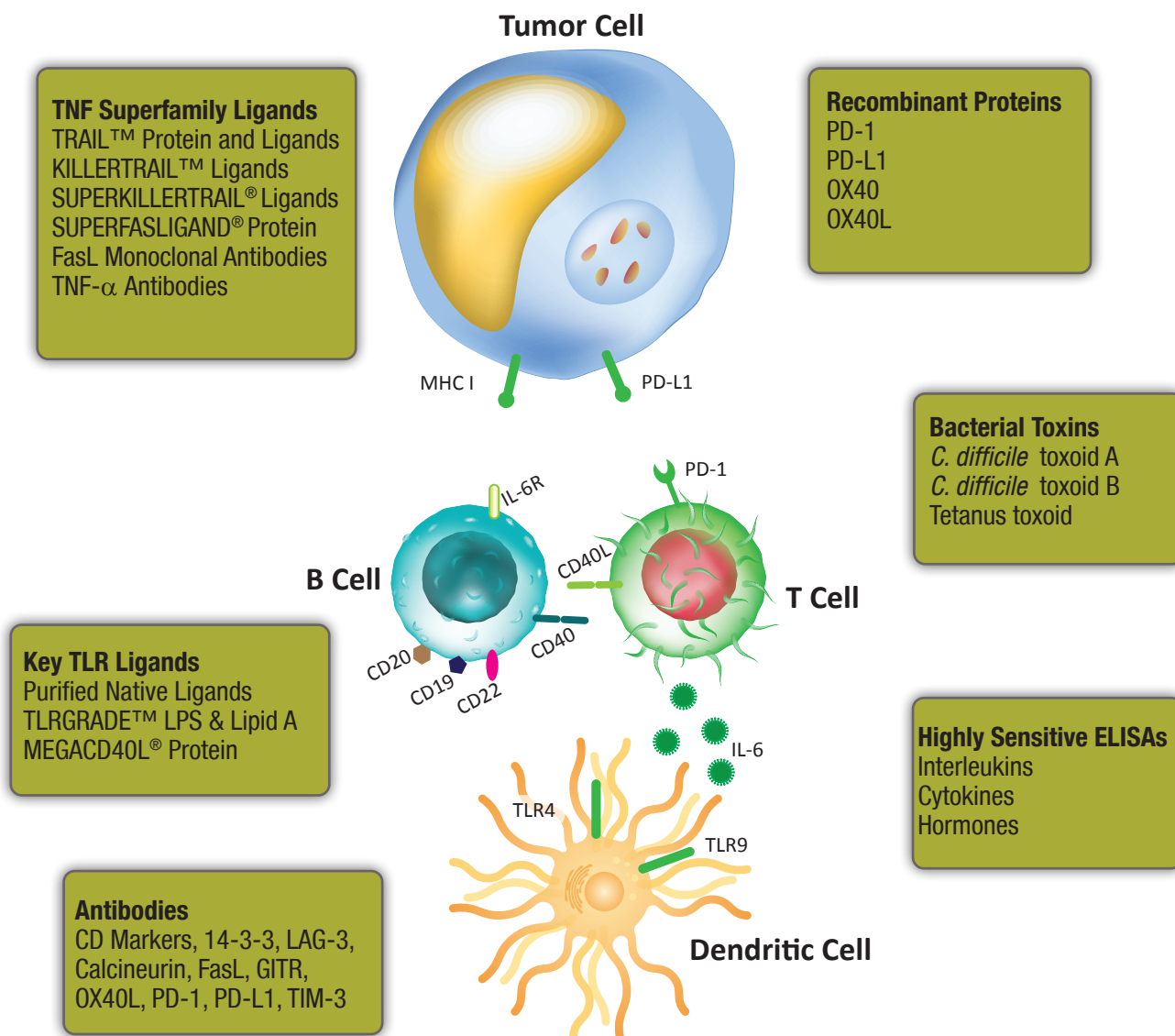
Immuno-Oncology

Innovative Tools for
Immuno-Oncology Research



UNDERSTANDING IMMUNE CHECKPOINTS IN IMMUNOLOGY AND CANCER

At Enzo, we offer a complete set of solutions for immuno-oncology research including antibodies, ELISA kits, and recombinant proteins. Our diverse scientific and technical expertise has helped us create innovative assays and reagents to help support immuno-oncology research. We provide flexible and validated tools to help you generate reliable and consistent results.



Superior Ligands & Toxins

Accelerate your immuno-oncology research by using our enhanced TNF and TLR ligands. Additionally, we offer ultrapure LPS, lipid A reagents, and bacterial toxins. We provide high quality, pure, and consistent reagents specifically designed for your immune system activation research.

Immunoassay Kits

Our catalog of nearly 300 ELISA kits includes sensitive, specific assays for relevant markers of cell viability, signaling pathways, steroid and peptide hormones, inflammation, and more. In addition to traditional antibody pair based immunometric assays, our scientists specialize in the particularly challenging production of high specificity competitive ELISAs for detection of small molecules. With 40 years of assay development experience and state-of-the art manufacturing facilities, Enzo ensures time-tested reproducibility.

Cell-Based Assays

Our CELLESTIAL® portfolio of fluorescent probes and assay kits for cellular analysis provides a complete set of tools for monitoring cell viability, proliferation, death, oxidative stress and toxicology. Our dye-based assays have been optimized for the most demanding imaging applications including confocal microscopy, wide-field fluorescence microscopy, flow cytometry, and high content screening, where consistency and reproducibility are essential.

ACCELERATE YOUR IMMUNE ACTIVATION STUDIES

TLRs play a role in the innate immune system, detecting pathogen-associated molecule patterns (PAMPs) of bacterial, viral, fungal, and protozoal origin.

KEY TOLL-LIKE RECEPTOR LIGANDS

TLR	Ligands	Product #	TLR	Ligands	Product #
TLR1/TLR2	Pam ₃ Cys-Ser-(Lys) ₄ trihydrochloride	ALX-165-066	TLR5	Flagellin (high purity)	ALX-522-058
TLR2/TLR6	MALP-2	ALX-162-027	TLR7/TLR8	R-848	ALX-420-038
TLR3	Polyinosinic-polycytidylic acid. potassium salt (TLRGRADE™) (synthetic)	ALX-581-013	TLR9	ODN 1668 (TLRGRADE™) (synthetic)	ALX-746-001
TLR4	LPS from <i>E. coli</i> , Serotype O55:B5 (TLRGRADE™)	ALX-746-013		ODN 1826 (TLRGRADE™) (synthetic)	ALX-746-002
	Lipid A from <i>E. coli</i> , Serotype R515 (Re) (TLRGRADE™)	ALX-581-200		ODN 2006 (TLRGRADE™) (synthetic)	ALX-746-006
	Monophosphoryl Lipid A (synthetic)	ALX-581-205		ODN 2216 (TLRGRADE™) (synthetic)	ALX-746-005
	Paclitaxel	BML-T104		ODN 2395 (TLRGRADE™) (synthetic)	ALX-746-020

Co-Stimulation of T Cell Response

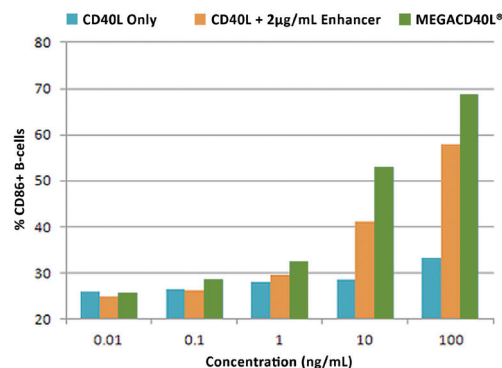
Superior Performance from Carefully Engineered TNF Superfamily Ligands

MEGACD40L® Protein (soluble) (human), (recombinant) (ALX-522-110)

Improved stability and enhanced activity, when compared to CD40L alone or with enhancers

Guarantees reliable results through consistent lot-to-lot performance

Enhance Immune Activation with MEGACD40L® Protein



B cell lymphocyte activation by various CD40L constructs. PBMCs were treated for 48 hrs in media containing serially diluted CD40L, CD40L + 2 µg/mL Enhancer, or MEGACD40L® Protein. Cells were dual-stained with α-human CD19-PE and α-human CD86-APC and analyzed by flow cytometry. Data are presented as the percent of CD19+ B cells that co-stain as CD86+.

Death Receptor Ligands

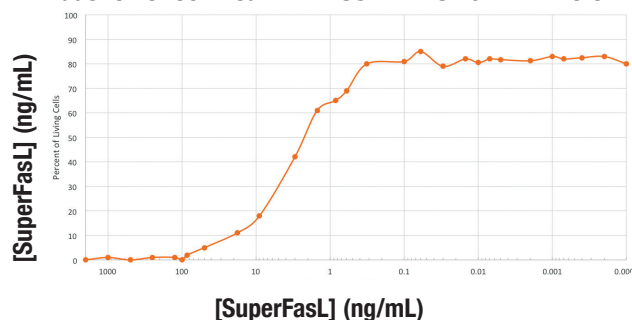
Members of the tumor necrosis factor (TNF) receptor gene superfamily bind to extrinsic ligands and transduce intracellular signals leading to the destruction of the cell. Ligands, such as FasL and TNF-α, hold potential as targets for therapeutic and diagnostic applications.

SUPERFASLIGAND® Protein (soluble)(human), (recombinant) (ALX-522-020)

Features an N-Terminus linker shown to improve stability

Enhanced immune activation compared to other recombinant ligands

Induction of Cell Death with SUPERFASLIGAND® Protein



Jurkat cells were incubated with the indicated concentration of SuperFasL and cell proliferation was assayed. % Viability was determined in comparison to control wells with no SuperFasL.

RELATED PRODUCTS

Product Name	Product #
FasL [CD95L,CD178] (soluble) (human), (recombinant)	ALX-522-001
Fc (h):TNF-α (soluble) (human), (recombinant)	ALX-522-087
KILLERTRAIL™ Protein (soluble) (human), (recombinant)	ALX-201-073
SUPERKILLERTRAIL® Protein (soluble) (human), (recombinant)	ALX-201-115
TNF-α (human) (recombinant), (cell culture grade)	ALX-520-002
TNF-α (soluble) (human), (recombinant)	ALX-522-008
TRAIL (soluble) (human), (recombinant)(His-tag)	BML-SE721
TRAIL (soluble) (mouse), (recombinant)	BML-SE722

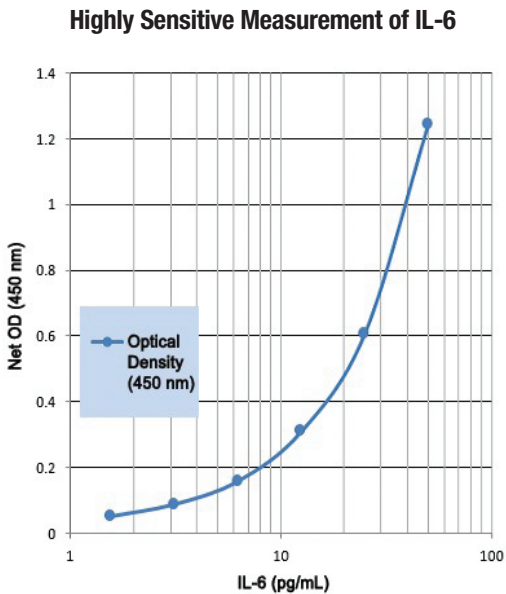
ANALYZE INFLAMMATORY BIOMARKERS WITH ELISA KITS

High-Specificity ELISAs for Innate and Adaptive Immune Research

We offer a large variety of immunoassay kits in both immunometric and competitive assay formats. As scientists and manufacturers of kits, we understand the critical nature of your research. Each kit is put through rigorous testing to ensure high precision, accuracy, sensitivity, and specificity. You can be confident that you will obtain reproducible results, day-after-day, and lot-after-lot.

- Sensitivity** – detect even the lowest sample concentration
- Broad Range** – minimize need for dilution
- Consistent** – strict quality control guidelines ensure reproducible results, lot-after-lot
- Trusted** – reliability highlighted in peer-reviewed publications for four decades

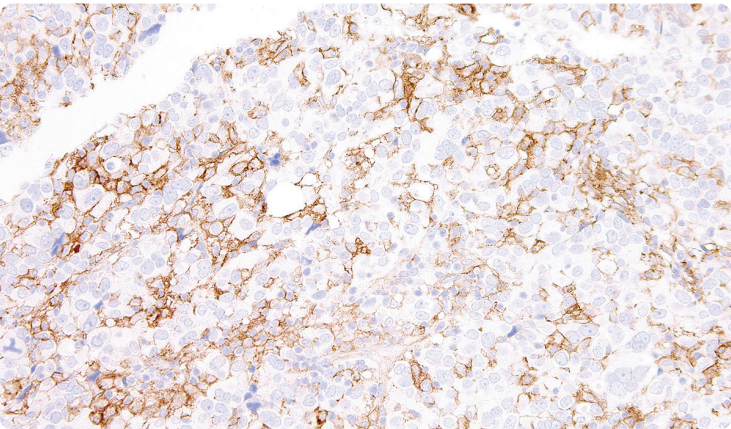
CYTOKINE/INTERLEUKIN ELISAs				
Human			Mouse	
Adiponectin	IL-4	Leptin	IFN- γ	Leptin
CD40	IL-6	Lipocalin 2 (NGAL)	IL-1 β	Lipocalin 2 (NGAL)
CD40L	IL-8	Nampt	IL-2	Nampt
FasL	IL-10	Osteoprotegerin	TGF- β 1	IL-6
IFN- γ	RANKL	IGF-1	TNF- α	
IL-13	TNF- α	IL-1 β		
TNF-R1	IL-2	IL-33		



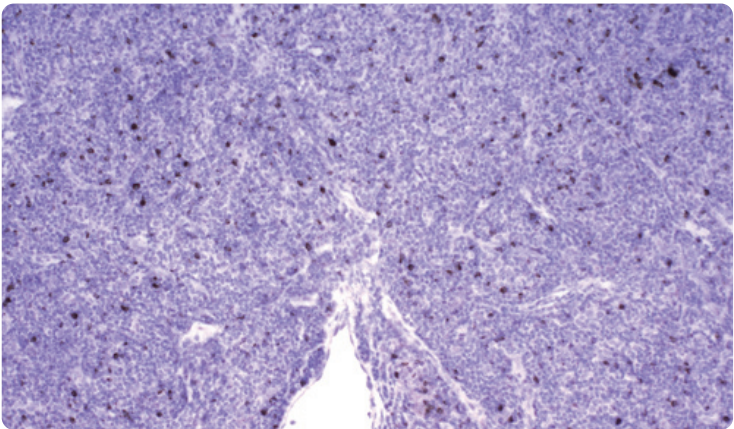
A typical standard curve for IL-6 (human) High Sensitivity ELISA kit (ENZ-KIT178)

Immune Checkpoints

Highly specific antibodies validated for various applications, from flow cytometry to IHC, help you discover immune checkpoint inhibitors, develop novel immunotherapies, and support your immuno-oncology research. **For more information, go to: www.enzolifesciences.com/antibodies**



IHC using anti-PD-L1 (ENZ-ABS693) on lung adenocarcinoma tissue.












IHC using anti-LAG-3 (ENZ-ABS677) on human tonsil tissue.

HIGH QUALITY ANTIBODIES DELIVER SUPERIOR RESULTS

Detect Specific Cell Populations with Antibodies for CD Markers

Enzo offers over 50 CD antibodies validated for flow cytometry and microscopy applications.

CD Marker	T Cells	B Cells	Dendritic Cells	NK Cells	Stem Cell Precursor	Macrophages	Granulocytes	Endothelial Cells	Epithelial Cells
									
CD3	•								
CD4	•					•	•		
CD8	•			•					
CD9	•	•				•	•	•	•
CD11a	•	•		•		•	•		
CD18	•	•	•	•		•	•		
CD20	•	•							
CD23	•	•	•			•	•		•
CD31	•	•		•		•	•	•	
CD38	•	•	•	•	•	•			
CD39	•	•	•	•		•		•	•
CD40	•	•	•		•	•	•	•	•
CD40L	•								
CD41a					•				
CD41b					•				
CD42					•				
CD44	•	•		•		•	•	•	•
CD45	•	•	•	•	•	•	•		
CD45RA	•	•	•	•	•	•			
CD49b/CD29	•	•	•	•	•	•	•	•	•
CD51						•		•	
CD52	•	•		•					•
CD54	•	•				•		•	
CD66a							•		•
CD66b							•		
CD66c							•		•
CD66e									•
CD68	•	•	•		•	•	•		
CD74	•	•	•			•		•	•
CD80	•	•	•			•			
CD83		•	•						
CD87	•			•		•	•	•	
CD107b	•						•	•	
CD123			•		•		•	•	
CD127	•				•	•			
CD134L	•								
CD163						•			
CD194	•		•	•		•		•	
CD205		•	•			•			
CD207			•						
CD208			•						
CD223	•			•	•				
CD243					•				
CD279	•								
CD324					•				•
CD325					•				

Simplify Your Science™

Visit www.enzolifesciences.com/immuno-oncology
to learn about our innovative tools.



Global Headquarters ENZO LIFE SCIENCES, INC.

81 Executive Blvd., Suite 3
Farmingdale, NY 11735
Phone: 800.942.0430
Fax: 631.694.7501
info-usa@enzolifesciences.com

European Sales Office ENZO LIFE SCIENCES (ELS) AG

Industriestrasse 17
CH-4415 Lausen, Switzerland
Phone: +41 61 926 8989
Fax: +41 61 926 8979
info-eu@enzolifesciences.com

LOCAL EUROPEAN OFFICES

Belgium, The Netherlands & Luxembourg

Enzo Life Sciences BVBA
Avenue Louise 65/Box 11
1050 Bruxelles
Belgium
Phone: +32 3 466 0420
Fax: +32 3 808 7033
info-be@enzolifesciences.com

France

Enzo Life Sciences (ELS) AG
Branch Office Lyon
13, avenue Albert Einstein,
F-69100 Villeurbanne, France
Phone: +33 472 440 655
Fax: +33 481 680 254
info-fr@enzolifesciences.com

Germany

Enzo Life Sciences GmbH
Basler Strasse 57a
DE-79540 Lörrach
Germany
Phone: +49 7621 5500 526
Fax: +49 7621 5500 527
info-de@enzolifesciences.com

UK & Ireland

Enzo Life Sciences (UK) Ltd.
1 Colleton Crescent
Exeter EX2 4DG
Phone (UK customers):
0845 601 1488
Phone: +44 1392 825900
Fax: +44 1392 825910
info-uk@enzolifesciences.com

SCIENTISTS ENABLING HEALTHCARE™

For local distributors and detailed product information visit us online:
www.enzolifesciences.com

