



## Charles River Immunology Services by Cell Type

Our global team of immunologists offer *in vitro* assays using primary human and rodent cells to conduct immunological and pharmacological investigations that will support you throughout the drug development process. Browse our immunology service offerings by cell type and connect with our specialists at [criver.com/ask-immunology](https://www.criver.com/ask-immunology).

### T Cell Assays

- CD4+ T function
- CD8+ T cells role
- Polyclonal T cell activation assays
- Antigen-specific T cell activation assays
- Mixed lymphocyte reaction (MLR) assays
- Analysis of naïve or memory T cell populations
- Expansion and functional analysis of rare antigen-specific T cells
- T cell differentiation
- Natural or inducible Regulatory T Cell (Treg) functional assays
- Immune synapse formation

### B Cell Assays

- B Cell Assays: Antibody Production
- B Cell: Activation and Proliferation
- B Cell Assays: Antibody Class Switching
- B Cell Assays: Antigen Presentation

### Dendritic Cell Assays

- Flow cytometric analysis for dendritic cell assays
- Confocal imaging analysis for dendritic cell assays
- Dendritic cell maturation cytokine profiles
- Functional dendritic cell and T cell co-cultures
- Tolerogenic dendritic cells
- Genetic manipulation of primary moDC
- Human dendritic cell activation of autologous antigen specific T cell

### Macrophage Cell Assays

- Macrophage polarization cytokine profiles
- Macrophage and T cells co-cultures
- Macrophage phagocytic assays
- Functional Murine Macrophage cell assays

### Fibroblasts Assays

- Epithelial-to-mesenchymal (EMT) assay
- Fibroblasts-to-myofibroblasts (FMT) assay
- M1 polarization assay
- M2 polarization assay

### Platelet Assays

- Activation assay
- Aggregation assay

### Neutrophil Assays

- Phagocytosis assay
- Enzyme release assay
- ROS and inflammatory mediators assay
- NETosis assay
- Interaction with various cell types assay
- [Chemotaxis Assay Neutrophils](#)

### ILC Assays

- Flow cytometry assays
- Cytokine release assays
- Co-culture assays

EVERY STEP OF THE WAY

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### **Epithelial/Immune/Microbial Cocultures Assays**

- Immune cells epithelial co-culture assays
- Barrier integrity assays (TEER)
- Flow cytometry assays
- Cytokine release assays

### **Haematopoietic Stem Cells Assays**

- Murine and human HSC assays
- Growth and expansion
- Flow cytometric phenotyping
- Colony forming units
- Transfection/genetic modification

### **Microglial/Neuron Assays**

- Phagocytosis assays
- Co-culture assays
- Activation assays

### **Tumor/Immune Cell Assays**

- Tumor killing assays
- Tumor associated macrophages assay
- MDSC assays
- T cell assays
- NK cell assays