Human Immune Cell Phenotyping IHC Antibody Sampler Kit

HAK21051

Contains Product	Quantity	Applications	Species reactivity	MW(kDa)
CD3 [HA720082]	20µl	WB,IHC-P,IF-Tissue,IP,mIHC,IF-Cell	H	23 kDa
CD8 alpha [ET1606-31]	20µl	WB,IF-Cell,IF-Tissue,IHC-P,FC	H	26 kDa
FOXP3 [ET1702-12]	20µl	WB,IF-Cell,FC,IHC-P	H,M,R	47 kDa
CD11b [HA722075]	20µl	WB,IHC-P,IF-Tissue	H,M,R	127 kDa
CD68 [HA601115]	20µl	IHC-P,IF-Cell,FC,mIHC,IF-Tissue	H	37 kDa
CD11c [ET1606-19]	20µl	WB,IHC-P,IP,mIHC	H	128 kDa
NCAM1 / CD56 [HA722755]	20µl	WB,IHC-P,IHC-Fr,IF-Cell,FC,IF-Tissue	H,M,R	95 kDa
CD19 [ET1702-93]	20µl	WB,IF-Cell,IF-Tissue,IHC-P,FC,mIHC	H	61 kDa
pan Cytokeratin [HA601138]	20µl	IHC-P,mIHC,IF-Cell,IF-Tissue,WB,FC	H	

Description: The Human Immune Cell Phenotyping IHC Antibody Sampler Kit provides an economical means of detecting the accumulation of immune cell types in formalin-fixed, paraffin-embedded tissue samples.

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Background Immunophenotyping is a technique that uses antibodies to identify and quantify specific cell types in heterogeneous populations. CD3 is a protein complex and T cell co-receptor that is involved in activating both the cytotoxic T cell and T helper cells. CD8 is a transmembrane glycoprotein that serves as a co-receptor for the T-cell receptor (TCR).

FOXP3 is a protein involved in immune system responses. CD68 is a protein highly expressed by cells in the monocyte lineage, by circulating macrophages, and by tissue macrophages. CD11a, b, and c are components of heterodimer CD11/CD18 adhesion molecules. CD11a is a panleukocyte marker . NCAM, also called CD56, is a homophilic binding glycoprotein expressed on the surface of neurons, glia and skeletal muscle. Although CD56 is often considered a marker of neural lineage commitment due to its discovery site, CD56 expression is also found in, among others, the hematopoietic system. B-lymphocyte antigen Due to CD19 expressed on all B cells, it is a biomarker for B lymphocyte development, lymphoma diagnosis and can be utilized as a target for leukemia immunotherapies. Cytokeratins are an important component of intermediate filaments, which help cells resist mechanical stress. Expression of these cytokeratins within epithelial cells is largely specific to particular organs or tissues. Thus they are used clinically to identify the cell of origin of various human tumors.

Database links: UniProt ID: P07766, P01732, Q9BZS1, Q99JB6, 317382, P11215, P05555, 25021, P34810, P20702, P13591, P13595, P13596, P15391, Q01546, Q7Z794

Images

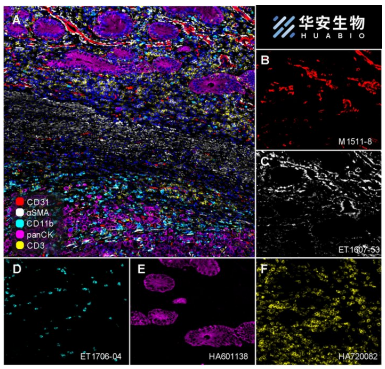

Fig1: Fluorescence multiplex immunohistochemical analysis of the human gastric cancer (Formalin/PFA-fixed paraffin-embedded sections). Panel A: the merged image of anti-CD31 (M1511-8, red), anti-αSMA (ET1607-53, gray), anti-CD11b (ET1706-04, cyan), anti-panCK (HA601138, magenta) and anti-CD3 (HA720082, yellow) on human gastric cancer. Panel B: anti- CD31 stained on the endothelial cells. Panel C: anti-αSMA stained on cancer-associated fibroblasts and smooth muscle cells. Panel D: anti-CD11b stained on myeloid cells. Panel E: anti-panCK stained on cancer cells. Panel F: anti-CD3 stained on T cells. HRP Conjugated UltraPolymer Goat Polyclonal Antibody HA1119/HA1120 was used as a secondary antibody. The immunostaining was performed with the Sequential Immuno-staining Kit (IRISKit™MH010101, www.luminiris.cn). The section was incubated in five rounds of staining: in the order of M1511-8 (1/1,000 dilution), ET1607-53 (1/2,000 dilution), ET1706-04 (1/1,000 dilution), HA601138 (1/3,000 dilution), and HA720082 (1/500 dilution) for 20 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95℃. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

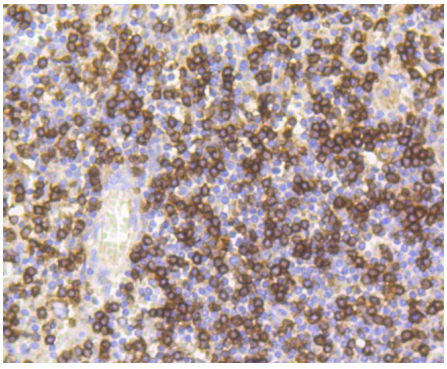

Fig2: Immunohistochemical analysis of paraffin-embedded human spleen tissue using anti-CD8 alpha antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1606-31, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

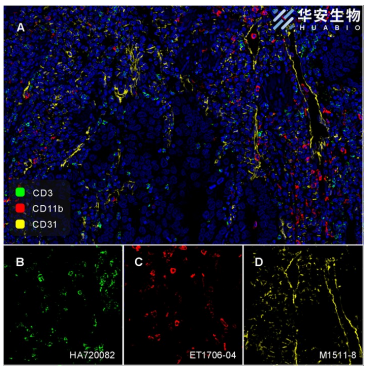

Fig3: Fluorescence multiplex immunohistochemical analysis of human gastric cancer (Formalin/PFA-fixed paraffin-embedded sections). Panel A: the merged image of anti-CD11b (ET1706-04, Red), anti-CD3 (HA720082, Green) and anti-CD31 (M1511-8, Yellow) on human gastric cancer. HRP Conjugated UltraPolymer Goat Polyclonal Antibody HA1119/HA1120 was used as a secondary antibody. The immunostaining was performed with the Sequential Immuno-staining Kit (IRISKit™MH010101, www.luminiris.cn). The section was incubated in three rounds of staining: in the order of ET1706-04 (1/1,000 dilution), HA720082 (1/500 dilution) and M1511-8 (1/1,000 dilution) for 20 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95℃. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Zeiss Observer 7 Inverted Fluorescence Microscope.

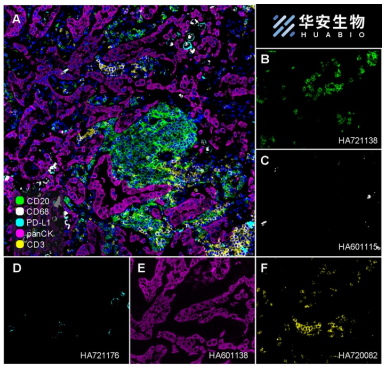

Fig4: Fluorescence multiplex immunohistochemical analysis of the human non-small cell lung cancer (Formalin/PFA-fixed paraffin-embedded sections). Panel A: the merged image of anti-CD20 (HA721138, green), anti-CD68 (HA601115, gray), anti-PD-L1 (HA721176, cyan), anti-panCK (HA601138, magenta) and anti-CD3 (HA720082, yellow) on human non-small cell lung cancer. Panel B: anti-CD20 stained on B cells. Panel C: anti-CD68 stained on macrophage M1 and macrophage M2. Panel D: anti-PD-L1 stained on dendritic cells and macrophages cells. Panel E: anti-panCK stained on cancer cells. Panel F: anti-CD3 stained on T cells. HRP Conjugated UltraPolymer Goat Polyclonal Antibody HA1119/HA1120 was used as a secondary antibody. The immunostaining was performed with the Sequential Immuno-staining Kit (IRISKit™MH010101, www.luminiris.cn). The section was incubated in five rounds of staining: in the order of HA721138 (1/1,500 dilution), HA601115 (1/2,000 dilution), HA721176 (1/1,000 dilution), HA601138 (1/3,000 dilution), and HA720082 (1/500 dilution) for 20 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95℃. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

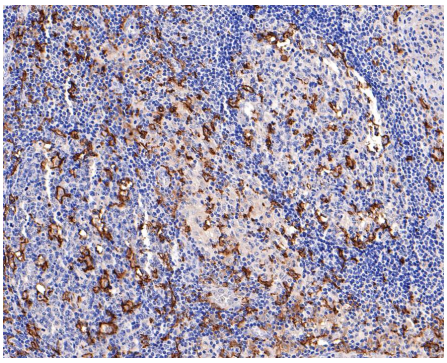

Fig5: Immunohistochemical analysis of paraffin-embedded human lymph nodes tissue with Rabbit anti-CD11c antibody (ET1606-19) at 1/400 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1606-19) at 1/400 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

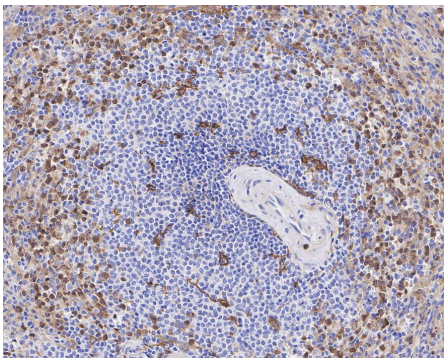

Fig6: Immunohistochemical analysis of paraffin-embedded human spleen tissue with Rabbit anti-CD11b antibody (HA722075) at 1/20,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA722075) at 1/20,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. Sarma A. Biological importance and pharmaceutical significance of keratin: A review. Int J Biol Macromol. 2022 Oct 31;219:395-413.
2. Wang L, Shang Y, Zhang J, Yuan J, Shen J. Recent advances in keratin for biomedical applications. Adv Colloid Interface Sci. 2023 Nov;321:103012.