immunostep
we know how

TiMaScan™

Most accurate detection and characterization of tumour associated macrophages in blood.

EuroFlow
Standardize

Consensus markers and independent of the stage of monocyte maturation.

PRODUCT
TiMaScan

REFERENCE
Scan-0103

FORMAT
Liquid

SIZE
25 test

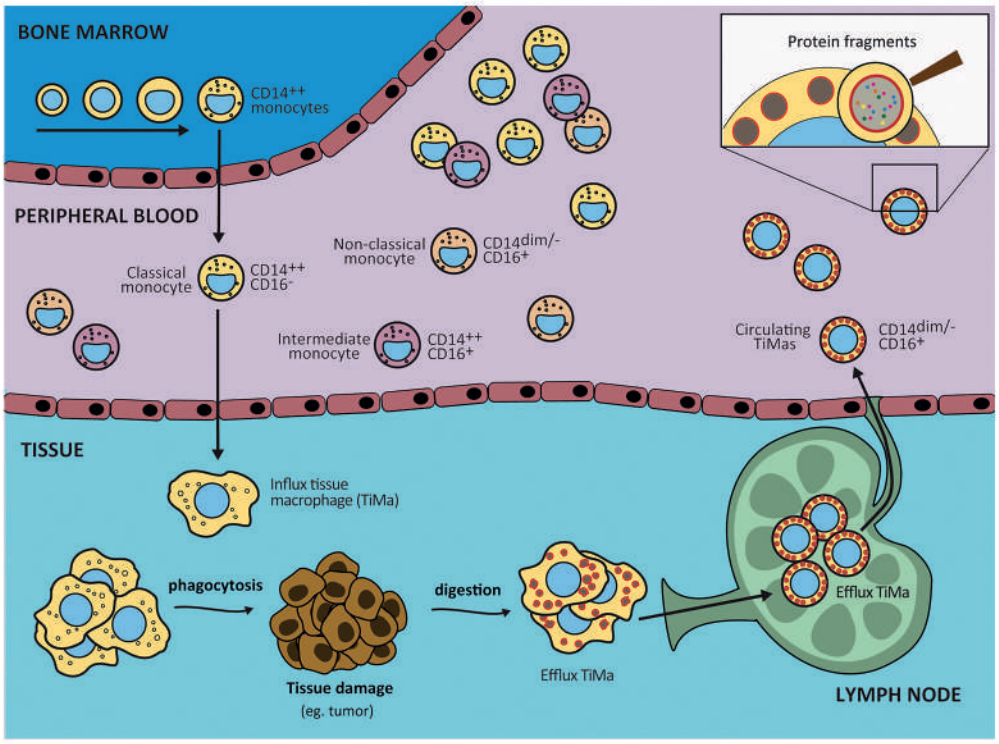
CF-Blue	OC515™	PerCP-Cyanine5.5	PE-Cyanine7	FITC	PE	APC-C750	*Select a tumour marker from those currently available: CEA, APF, CA125, SSC, CA 19.9, B-hCG.
HLA-DR	CD45	CD14	CD300e	*	Tissue protein fragment specific antibodies	CD16	

TiMaScan consists of a panel of **pre-mixed antibodies and fluorochromes** in liquid format, including backbone markers for the **screening of different stages of monocytes and tumour associated macrophages in blood.**

ADVANTAGES

1. Easy, fast and reliable tool
2. Most informative and relevant markers included
3. Customisable pre-mixed combination ready to use
4. Minimally invasive tool for tumour associated macrophage detection
5. Tissue damage specific disruptive "all-in-one" combination
6. Applications in cancer screening programs

Characteristics of blood monocytes and tissue macrophages



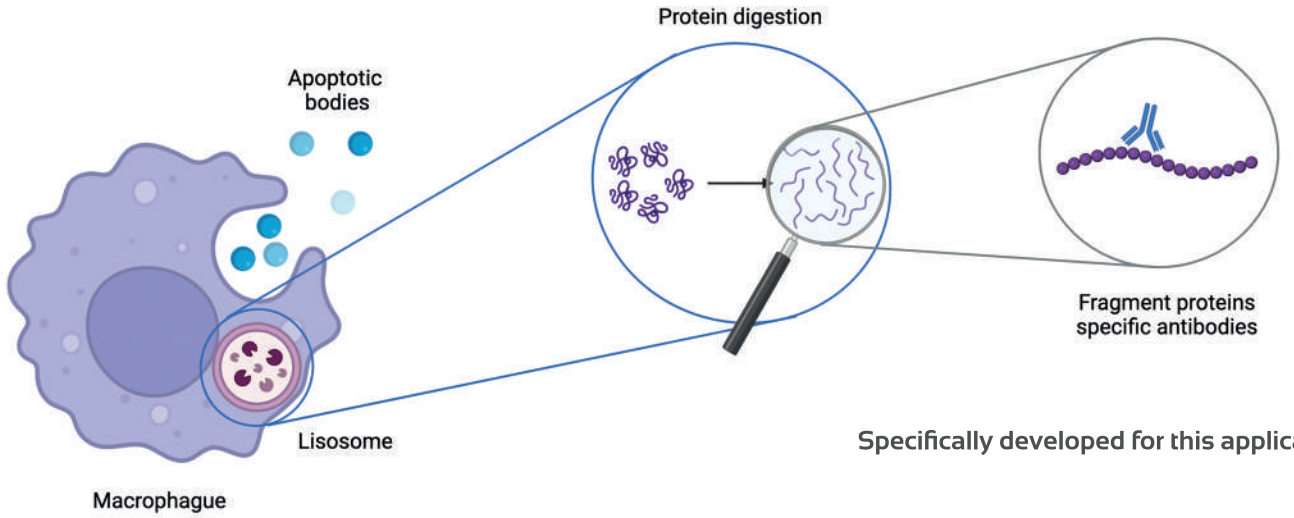
Monocytes are produced by the bone marrow from precursors. Monocytes circulate in the bloodstream for about one to three days and then typically migrate into tissues throughout the body where they differentiate into macrophages which have the function of phagocytosing bacteria and damaged tissue.

Therefore the vast majority of monocytes (90-95%) in human blood are CD14++/CD16-/dim "classical monocytes", whereas macrophages in human tissues are generally CD14dim/CD16+/++. Interestingly, in human lymph most monocytes/macrophages (65-95%) have the "non-classical" CD14dim/CD16++ phenotype. This suggests that the small population (5-10%) of CD14dim/CD16++ "non-classical monocytes" in blood are most likely Tissue macrophages (TiMas), which have returned from their patrolling and scavenger tasks in the body tissues.

Different studies have identified changes in the absolute and relative numbers of circulating monocytes and TiMas in clinical conditions with significant tissue disruption, such as in case of inflammation, sepsis, autoimmune disease, and cancer. Therefore, acurate detection and definition of blood monocyte & TiMa subset represent a novel tool for early diagnosis and treatment monitoring in oncology and tissue homeostasis.

Tissue protein fragment specific antibodies

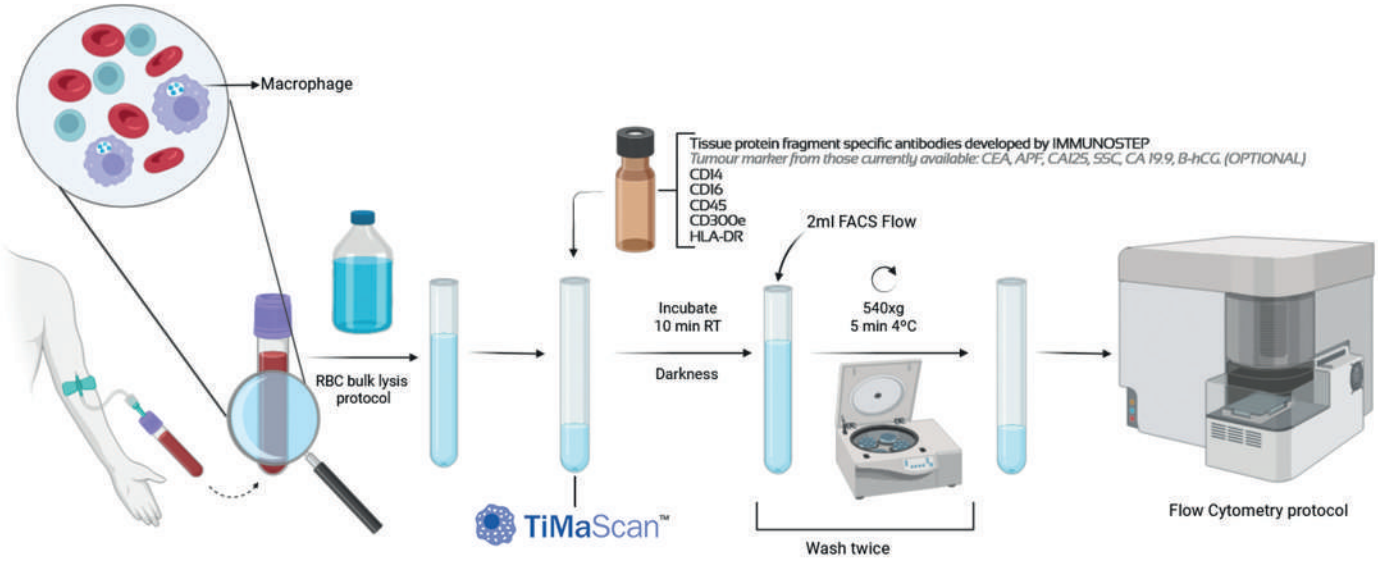
Immunostep has developed a unique antibodies library to protein fragments derived from lysosome digested tissue proteins (skin, lung, brain, etc.).



Specifically developed for this application.

Protocol

Bulk lysing or Lyse / Stain / Wash (LSW) protocol recommended to increase monocyte and TiMa subset concentration. In order to reach a high sensitivity > 10 million total events must be acquired.



References

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