SOLVO MDQ Kit™ CE IVD

MultiDrug Resistance protein function measurement in rheumatoid arthritis

Novelty

In rheumatoid arthritis (RA) measurement of MDR protein function in activated T lymphocytes correlates with disease activity, disease prognosis, and drug intolerance. Testing of MDR pump function with the SOLVO MDQ KitTM has therefore multiple benefits for RA patients: reducing the risk of drug intolerance for MTX, dynamic disease activity monitoring to achieve earlier remission, and drug efficiency monitoring. SOLVO MDQ KitTM is a biomarker-based diagnostic tool for better RA management.

Background

Multidrug Resistance (MDR) is a widely known phenomenon in drug therapy. SOLVO MDQ Kit™ is the first biomarker-based diagnostic kit for the detection of MDR protein function by flow cytometry. It is designed to determine the functional activity of the three clinically most relevant drug efflux proteins: MDR1, MRP1, and BCRP.

Clinical relevance

- Elevated MDR protein activity can be correlated with prognosis, drug efficiency and disease activity
- MDR protein function can be correlated with disease activity in autoimmune diseases
- MDR protein activity determination is a safety measure for patients on highly demanding cytotoxic/immune suppressant drugs
- Conventional DMARDs (*e.g.: methotrexate (MTX), leflunomide (LF), methyl predinisolone (MP)*) are substrates of MDR transporters

Application in RA

1. Disease onset (Phase#1 EULAR guideline)

1.1. In the case of new RA patients, measurement of initial MDQ value that – in view of polyarthritis, ACPA and Rheumatoid factor and alongside ESR, DAS28 values - could be predictive of the activity and severity of the clinical course of the disease.

1.2 New, methylprednisolone (MP) therapy receiving patients – MDQ measurement every month for 3 to 6 months to assist the doctor in deciding when to quit the MP.

1.3 MDQ measurement in the case of new MTX+NSAID or MTX+small dosage MP receiving patients if there is a relapse (flare).

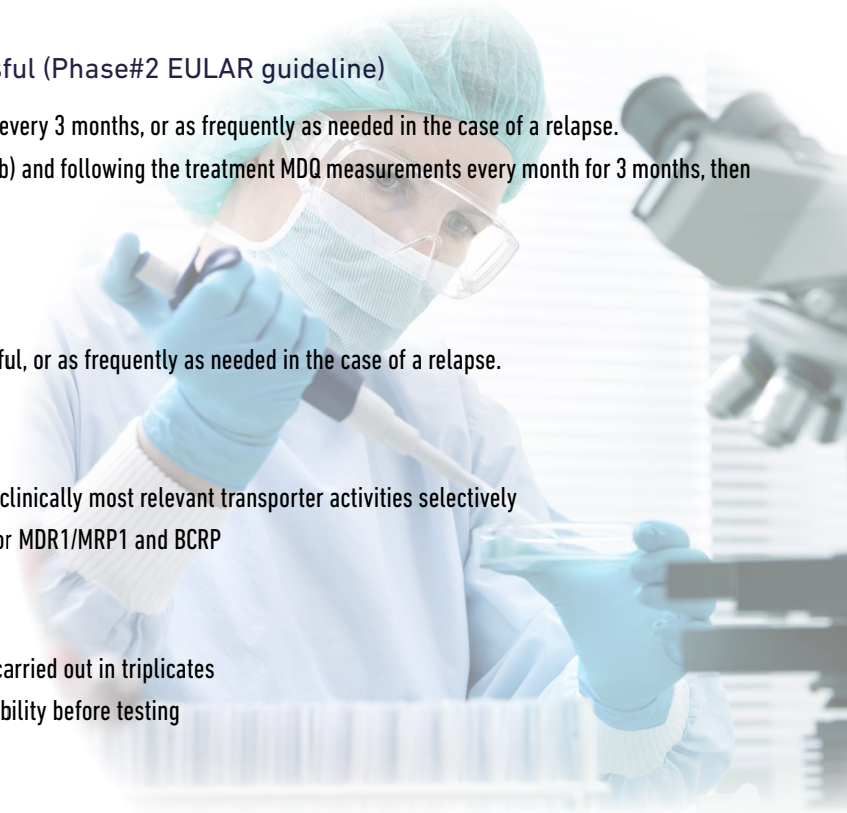
2. Developed RA -If initial treatment was unsuccessful (Phase#2 EULAR guideline)

2.1 Combined DMARD (eg. MTX+LF) treatment – MDQ measurement every 3 months, or as frequently as needed in the case of a relapse.

2.2 Prior to TNF inhibitor/first-line biologics therapy (i.e: Tocilizumab) and following the treatment MDQ measurements every month for 3 months, then every 3 months.

3. Late stage RA (Phase#3 EULAR guideline)

3.1 MDR activity monitoring every 3 months if treatment is successful, or as frequently as needed in the case of a relapse.



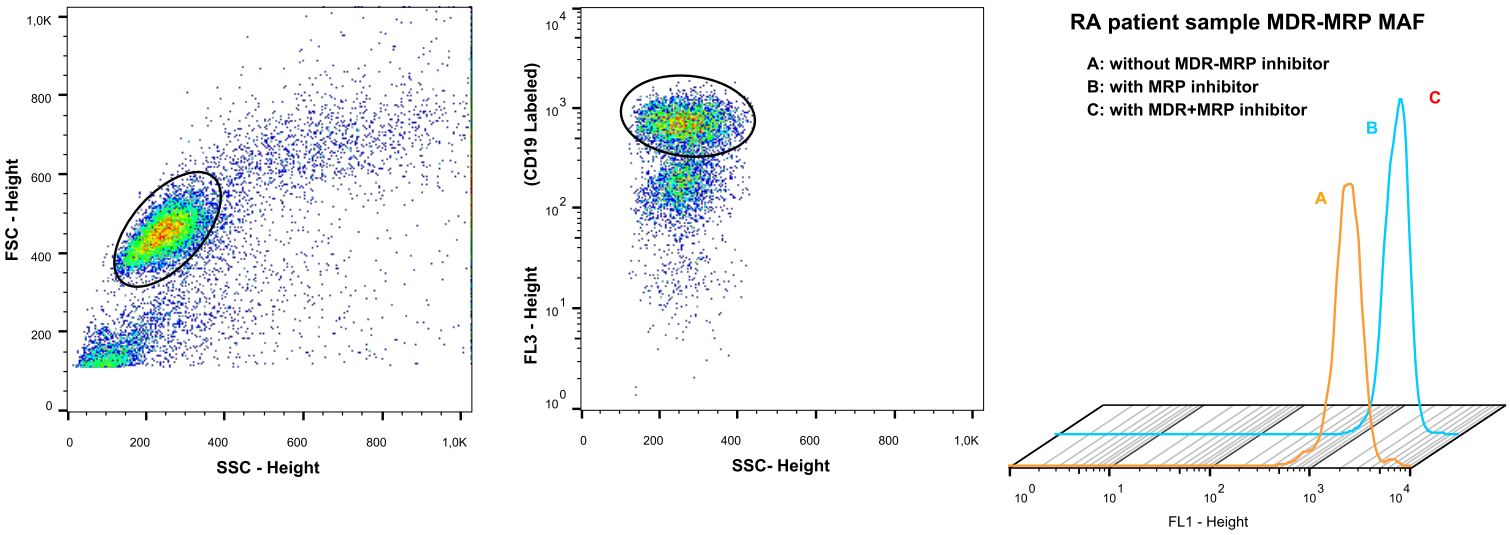
Features

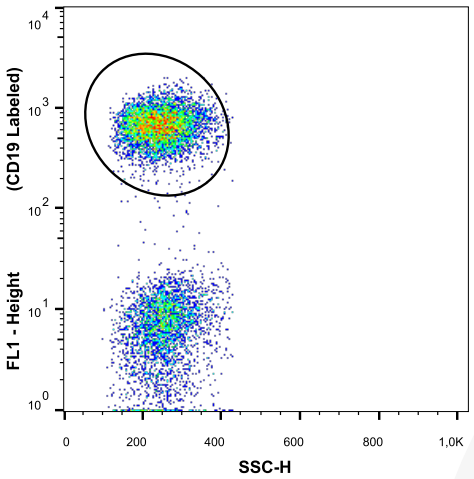
- The kit contains two proprietary assays and measures the three clinically most relevant transporter activities selectively
- Uses highly selective inhibitors and different probe substrates for MDR1/MRP1 and BCRP
- Compatible with cell surface markers
- Contains ready-to-use reagents
- 10 independent MDR1/MRP1 and BCRP measurements could be carried out in triplicates
- Specimen: cell suspension, blood, bone marrow etc.: 6 hours stability before testing
- The first test results can be expected within 90 minutes

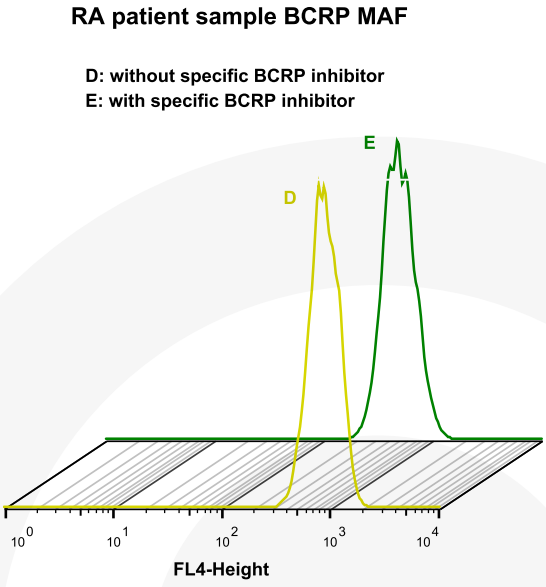
Availability

PRODUCT	SIZE	CAT. NO.
SOLVO MDQ Kit™ CE IVD	10 assays	MDQ0101D

Figure 1. MDR activities in rheumatoid arthritis on CD3+ cells







References

For further information and references check our website at:
http://www.solvomdqkit.com/product/clinical-immunologists

Disclaimer: Our value proposition is based on expert opinion and the best available evidence and is harmonized with the EULAR guideline. However this publication is an informative document intended for informational purposes only and does not constitute medical practice nor medical advice.

MDQuest
52 Közép fasor, Szeged, H-6726. Hungary
Phone: +36 62 424-729
Fax: +36 1 62 420-617
E-mail: sales@mdquest.hu
Web: www.mdquest.hu