TECHNOLOGY OFFER

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Novel platelet biomarkers for detection of thrombosis risk

We hereby present novel biomarkers for the detection of platelet reactivity. These new biomarkers allow the risk estimation for people having a vascular disease or monitoring treatment success of people receiving antiplatelet drugs as ADP receptor antagonists.
Compared to known platelet biomarkers, these newly characterized markers provide larger effect sizes, thus enabling the development of more robust kits for monitoring of platelet reactivity.

REFERENCE:
719.18

APPLICATIONS:
Monitoring of thrombosis risk and response to antiplatelet drugs

DEVELOPMENT STATUS:
Proof of concept

IPR:
EP Prio 18172316.4 filed on 15.05.2018

AVAILABLE FOR:
License agreement
Development of a platelet reactivity test kit

INVENTOR:
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BACKGROUND

Platelets represent a decisive factor in (cardio) vascular diseases, the leading cause of death in the industrialized world.
Currently, phosphorylated VASP (vasodilator-stimulated phosphoprotein) is the best-known protein to detect inactivation potential in platelets. There are several VASP-P test kits available on the market.

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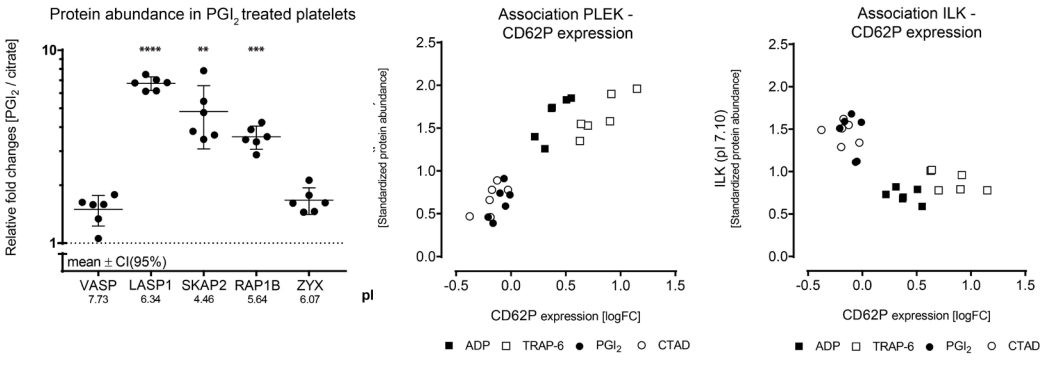
Our technology includes several other and more sensitive PKA-targets with significantly stronger platelet inhibition-induced phosphorylation levels than VASP. These include LIM and SH3 domain protein 1 (6.7-fold), Src kinase-associated phosphoprotein 2 (4.6-fold), Ras-related protein rap1b (4.1-fold) and ZYX (1.3-fold). In addition, phosphorylated ILK and PLEK protein species were characterized showing a higher effect size than the established platelet activation marker, surface abundance of CD62P.
We hereby offer an in vitro method for identification of abnormal platelet reactivity potential. Only a blood sample is required and the phosphorylation level is measured and subsequently compared to the phosphorylation level of an untreated control blood sample. Vice versa patient samples are compared to healthy controls.



Scheme- detection of platelet reactivity

BENEFITS

- Platelet inhibition markers with a higher effect size than established VASP-P
- Platelet activation markers with a higher effect size than established surface abundance of CD62P
- Robust and reliable blood biomarker to measure platelet reactivity

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