IBL LRG (Leucine-Rich alpha-2-Glycoprotein)

Cancer / Inflammation iNPH
(idiopathic normal pressure hydrocephalus)

Leucine rich alpha2-glycoprotein (LRG) is one of leucine-rich repeat family proteins. LRG has been shown to be involved in protein-protein interaction, signal transduction, and cell adhesion and development.

Recently, it was reported that serum levels of LRG were significantly elevated in Rheumatoid arthritis (RA) patients compared to healthy controls and decreased after anti-TNF therapy.
And another report indicate serum LRG levels are elevated in other inflammatory diseases compared to healthy controls, suggesting the potential of LRG as an inflammatory marker in various inflammatory diseases.

Among the diseases which should be distinguished from iNPH (idiopathic normal pressure hydrocephalus) of elderly people showing symptoms such as gait disorder and dementia, there are some neurodegenerative diseases such as Alzheimer's disease (AD), FTLD (frontotemporal lobar degeneration) and disorder associated with Parkinson's disease.

ELISA

#27769-96Well Human LRG Assay Kit - IBL*1*2
- Sample : Serum, EDTA plasma, Urine, CSF
- Measurement range : 1.56 〜 100 ng/mL
- Sensitivity : 0.17 ng/mL
- Primary Reaction : 18 hours at 4 °C

#27798-96Well Human LRG（Mono）ELISA Kit - IBL*1
- Sample : Serum, EDTA plasma
- Measurement range : 1 〜 64 ng/mL
- Sensitivity : 0.06 ng/mL
- Primary Reaction : 60 minutes at 37°C

#27770-96Well Rat LRG Assay Kit - IBL
- Sample : Serum, EDTA plasma, Urine, Supernatant
- Measurement range : 6.25 〜 400 ng/mL
- Sensitivity : 1.68 ng/mL
- Primary Reaction : 90 minutes at 37°C

#27785-96Well Mouse LRG Assay Kit – IBL*3
- Sample : Serum, EDTA plasma, Supernatant*2
- Measurement range : 0.25 〜 16 ng/mL
- Sensitivity : 0.06 ng/mL
- Primary Reaction : 60 minutes at 37°C

*1. 27769D100 Human LRG EIA buffer 100 (100mL) , 27798D100 Human LRG (Mono) EIA buffer 100 (100mL) are available with additional charge.
*2. 27769 kit will be discontinued when the stocks lasts.
*3. It may strongly react to FCS contained in supernatant used depending on the lot of FCS.

#27769 kit can measure LRG in CSF, blood or urine. It has become possible to distinguish iNPH from neurodegenerative diseases such as AD by measuring LRG in CSF.

Inflammatory Diseases
Cancers, Arthritis, Hepatitis, etc.
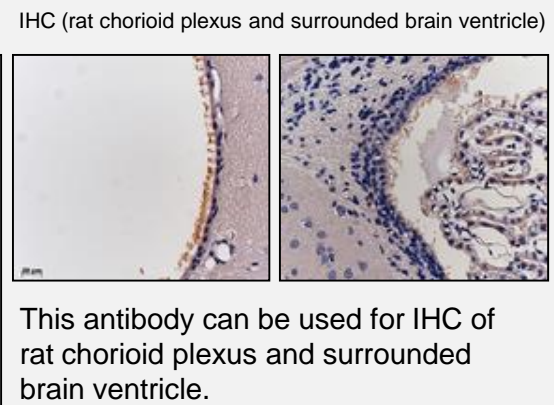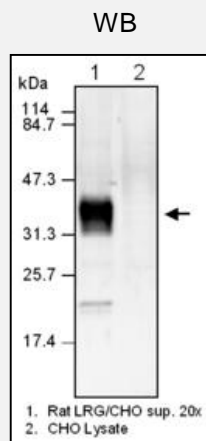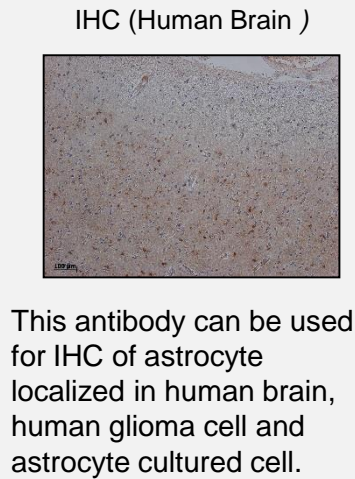
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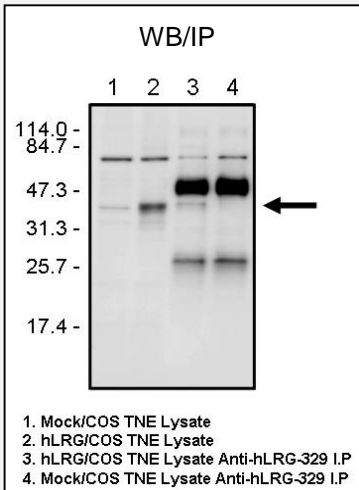
LRG (Leucine-Rich alpha-2-Glycoprotein)

Antibody

#28085 Anti-Human LRG (329) Rabbit IgG Affinity Purify
・Application　　　:　IHC, WB
・Package size　　:　100μg, 10μg
・Species　　　　 :　Human
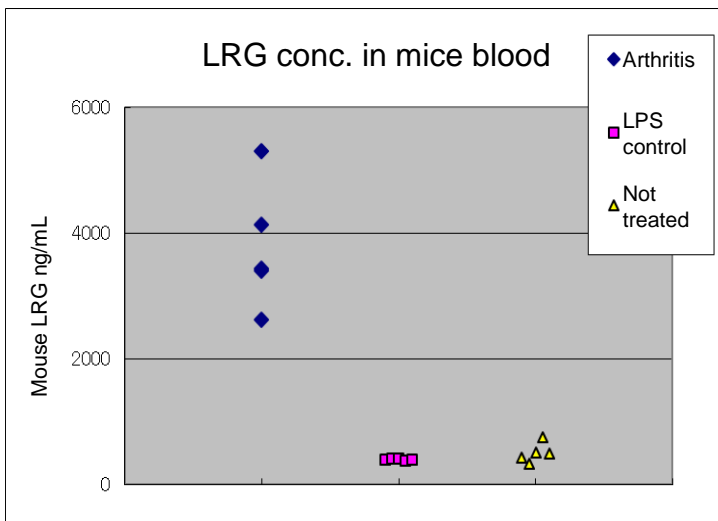
#28069 Anti-Rat LRG (128) Rabbit IgG Affinity Purify
・Application　　　:　IHC, WB
・Package size　　:　100μg, 10μg
・Species　　　　 :　Rat

WB/IP

1. Mock/COS TNE Lysate
2. hLRG/COS TNE Lysate
3. hLRG/COS TNE Lysate Anti-hLRG-329 I.P
4. Mock/COS TNE Lysate Anti-hLRG-329 I.P

IHC (Human Brain)

This antibody can be used for IHC of astrocyte localized in human brain, human glioma cell and astrocyte cultured cell.

WB

1. Rat LRG/CHO sup. 20x
2. CHO Lysate

IHC (rat chorioid plexus and surrounded brain ventricle)

This antibody can be used for IHC of rat chorioid plexus and surrounded brain ventricle.

Data provided by: Prof. Masakazu Miyajima, Department of Neurosurgery, Juntendo University School of Medicine

LRG has been attracting attention as active bio-marker of inflammatory related diseases.

Fig1：Measurement of the concentration of LRG in blood of arthritis evoked mice.

Fig 2. Measurement of the concentration of LRG in blood of EAE model mice (EAE: Experimental autoimmune encephalomyelitis)

LRG conc. in mice blood
◆ Arthritis
■ LPS control
△ Not treated

Used monoclonal cocktail antibody for evoking arthritis. (supplied by Iwai Chemicals Company)

LRG conc. in EAE model mice blood

EAE model mice　　Control
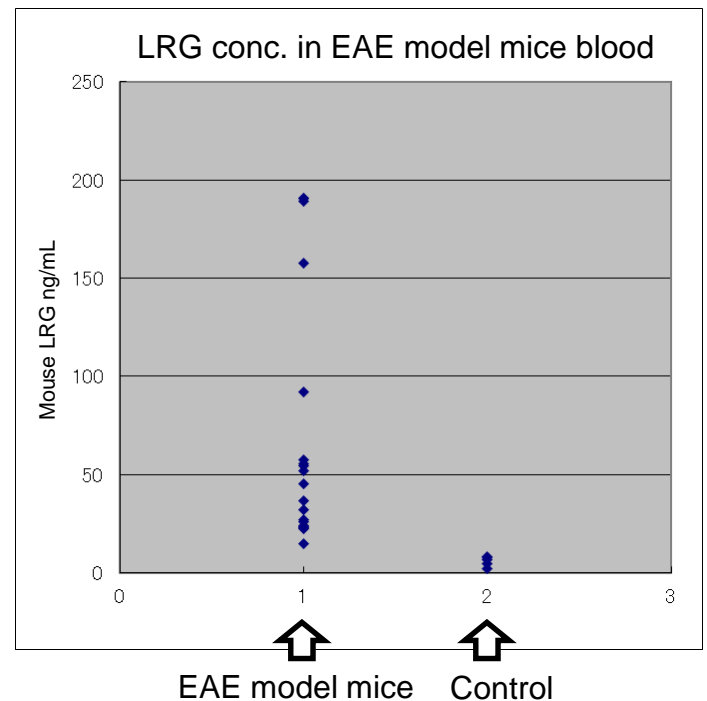
LRG is a useful tool as a monitoring marker of inflammatory diseases such as arthritis or EAE.

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