



LGI-1 and CASPR-2 Antibodies

Synonyms	Potassium channel antibodies, K ⁺ channel antibodies, VGKC, VGKC-complex antibodies
Clinical Indication	<p>LGI-1 antibodies: associated with facio-brachial dystonic seizures (FBDS)</p> <p>CASPR-2 antibodies: associated with Morvans syndrome</p> <p>FBDS and Morvans' syndrome are both sub-types of limbic encephalitis</p> <p>Traditionally a screening assay has been used to test for all VGKC antibodies (testing of patient serum binding to purified rabbit brain VGKC protein, via a radio-immunoprecipitation (RIA) method).</p> <p>Clinical studies looking at the outcome for patients who show positive VGKC antibodies by RIA but who are negative for LGI1 or CASPR by IIF, have found that these patients predominantly have a generic autoimmune / inflammatory phenotype, rather than true limbic encephalitis (Van Sonderen et al 2016, Yeo et al 2018).</p> <p>In light of these findings, from 19 October 2020, the Oxford Immunology Laboratory is recommending that LGI1 / CASPR2 antibody testing is conducted as a first line test when investigating a patient for VGKC antibodies.</p> <p>It is essential to provide relevant clinical information.</p>
Part of Profile / See Also	Voltage-gated potassium channel antibodies
Request Form	ICE/Medway request or Pathology manual blood form
Availability / Frequency of Analysis	Referred test: Analysed by Immunology, Oxford University Hospital 8782
Turnaround Time	6 weeks
Patient Preparation	
Sample Requirements	*Please note a separate sample is required when Immunology tests are requested in addition to Biochemistry tests*
Specimen Type	Serum
Volume	7 ml
Container	 Yellow top (SST) tube  Paediatric Yellow Top (SST) tube
Reference Range & Units	Results are reported as positive or negative
Interferences	None stated
Interpretation & Clinical	LGI-1 and CASPR-2 are two proteins that form part of the voltage-gated potassium channel complex (VGKC).

Decision Value (if applicable)

LGI-1 antibodies are associated with facio-brachial dystonic seizures (FBDS)

CASPR-2 antibodies are associated with Morvans syndrome

FBDA and Morvans syndrome are both sub-types of limbic encephalitis

Fixed cell assays are used to perform these tests.

References

<https://www.ouh.nhs.uk/immunology/diagnostic-tests/tests-catalogue/lgi1-caspr2-antibodies.aspx>

Test code

KCH

Lab Handling

Aliquot and store at 4-8°C prior to testing and at -20°C or below for up to 1 month after receipt.



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