Voltage-Gated Calcium Channel Antibodies

Synonyms	VGCC
Clinical Indication	VGCC Abs are tested for in patients with myasthenic symptoms (muscle weakness, slurred speech, double vision, difficulty swallowing and breathing) Investigation of: • Lambert-Eaton myasthenic syndrome (LEMS) with or without small cell lung carcinoma • Cerebellar ataxia with small cell lung carcinoma • Paraneoplastic cerebellar degeneration Calcium channel antibodies are rarely found in patients without myasthenic symptoms, except at low titre in a few cases with small cell lung cancer. This is because small cell lung cancers express this voltage gated calcium channel. It is essential to provide relevant clinical information.
Part of Profile / See Also	Voltage-gated potassium channel antibodies
Request Form	Combined Pathology manual blood form or ICE request
Availability / Frequency of Analysis	Referred test: Analysed by Immunology, Oxford University Hospital 8782
Turnaround Time	8 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	1 ml
Container	Yellow top (SST) tube Paediatric Yellow Top (SST) tube
Reference Range & Units	Normal result = Negative, <45 pM Low positive = 45-100 pM
Interferences	

Interpretation & Clinical Decision Value (if applicable)	Lambert-Eaton myasthenic syndrome (LEMS) (with or without small cell lung carcinoma SCLC) – positive in ~85% of cases
	Cerebellar ataxia with SCLC- positive in ~30% of cases
	Calcium channel antibodies are rarely found in patients without myasthenic symptoms, except at low titre in a few cases with small cell lung cancer. This is because small cell lung cancers express this voltage gated calcium channel.
References	https://www.ouh.nhs.uk/immunology/diagnostic-tests/tests-catalogue/calcium-channel-antibodies.aspx
Test code	VGCC
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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