

Antibody background

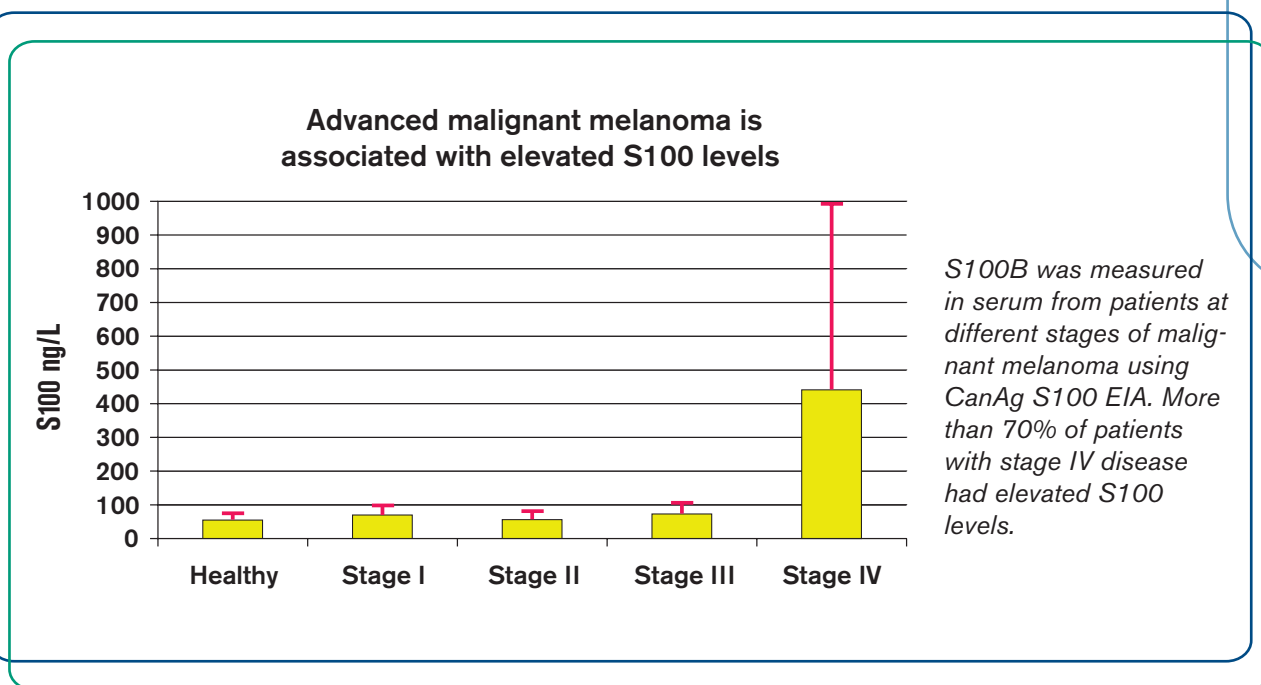
S100B protein belongs to the S100/calmodulin/parvalbumin/troponin C super family of EF-hand calcium binding proteins⁽¹⁻²⁾. The S100 proteins are small acidic proteins with a molecular weight of 10-12 kDa. S100 was originally isolated by Moore and co-workers in 1965 from bovine brain tissue and was considered a brain specific protein⁽³⁾. Today at least 20 members of the S100 family have been characterized based on structural and functional similarities⁽⁴⁾.

- S100B is found as hetero- and homodimers of A1- and B-subunits. The A1-and B-subunits show a high degree of sequence and species homology.
- S100B is primarily found in glial cells of the central and peripheral nervous system and in melanocytes but can also be found in adipocytes and chondrocytes⁽⁵⁾.
- The antibodies used in the CanAg S100 EIA targets two regions of S100B exposed in both the S100A1B- and S100BB dimer. This antibody combination provides an assay with similar sensitivity for the two S100B dimer forms.

Clinical utility

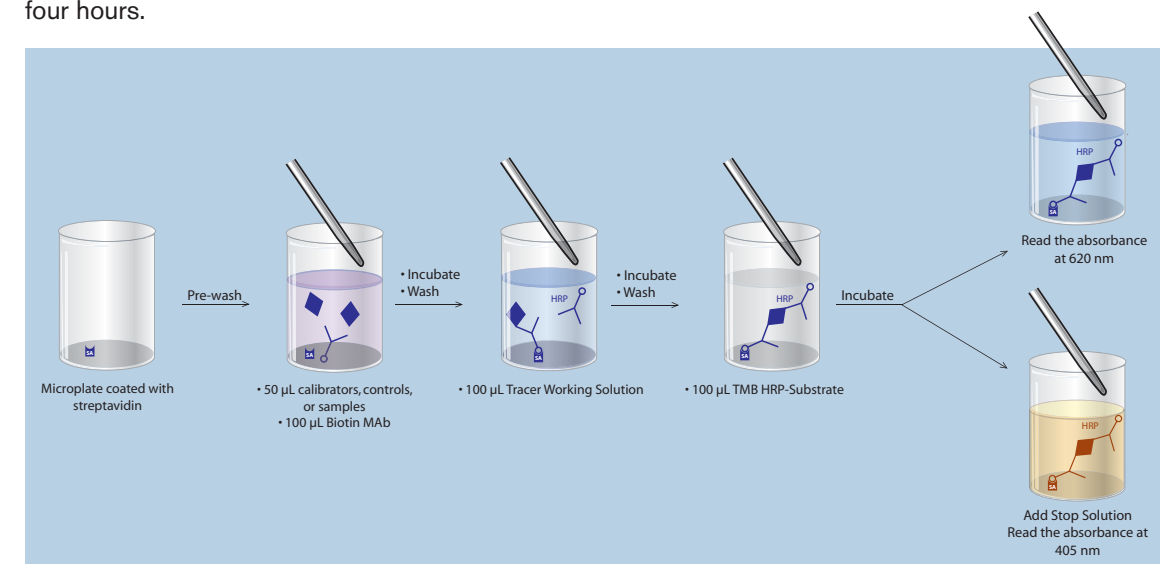
Malignant Melanoma is a skin cancer tumor originating from the melanocytes or pigment producing cells. It accounts for only about 4% of all skin cancers; however it is the most common cause of death in patients with skin cancer.

S100B has been shown to be an independent prognostic indicator of survival and disease free survival in more advanced stages of malignant melanoma. S100B is also useful for treatment monitoring of malignant melanoma patients – decreased marker concentrations reflect therapy response and increased marker concentrations indicate tumor progression⁽⁶⁻¹³⁾.



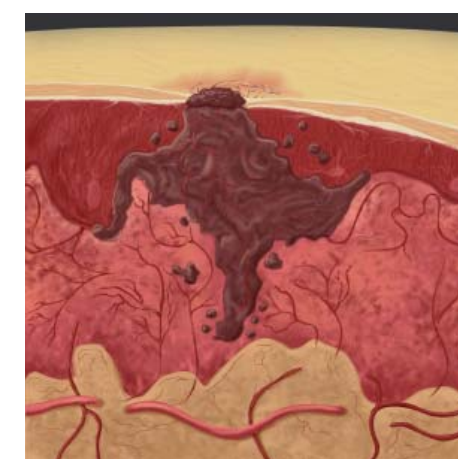
Assay procedure

Below is an illustration of the CanAg S100 EIA two-step assay procedure. Results are available within four hours.



CanAg S100 EIA

The CanAg S100 EIA is a solid-phase, non-competitive direct sandwich assay. The assay is based on two monoclonal antibodies, S23 and S53, targeting two regions of the S100B protein.



SPECIFICATIONS

Results within:	4 hours
Detection limit:	< 10 ng/L
Measuring range:	10–3 500 ng/L
Sample volume:	50 µL
Hook effect:	No hook up to 150 000 ng/L
Stability:	18 months at 2-8° C
Calibrator range:	0–3 500 ng/L
Incubation temp:	20–28° C
Recovery:	±10%
Detection:	620 nm or 405 nm
Reference value:	< 91 ng/L

ORDERING INFORMATION

Prod. No. 708-10
 CanAg S100 EIA
 For 96 determinations

Kit Contents

ITEM	QUANTITY
Microplate, streptavidin coated, 96 wells	1 plate, 12 x 8 breakable
CALIBRATORS	Lyophilised
S100 A	1 x 1 mL
S100 B	1 x 1 mL
S100 C	1 x 1 mL
S100 D	1 x 1 mL
S100 E	1 x 1 mL
S100 F	1 x 1 mL
Biotin Anti-S100 monoclonal antibody	1 x 15 mL
Tracer, HRP Anti-S100	1 x 0.75 mL
Tracer Diluent	1 x 15 mL
TMB HRP-Substrate	1 x 12 mL
Stop Solution	1 x 15 mL
Wash Concentrate	1 x 50 mL

LITERATURE REFERENCES

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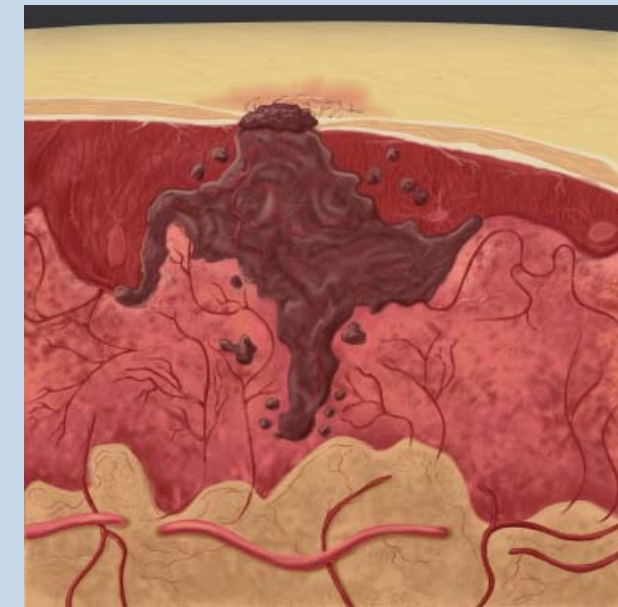


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PRODUCT INFORMATION

CanAg S100 EIA



Malignant Melanoma

CanAg S100 EIA assay measures the B-subunits of the protein S100B as defined by two monoclonal antibodies S23 and S53. S100B has been shown to be useful for the prognosis and treatment monitoring in malignant melanoma.

USA:
For Research Use Only
– not for use in diagnostic procedures

