

DEW
 Allergy: tear IgE – formatted
 Jun Shimazaki

DEWS	DRY EYE: DIAGNOSTIC TEST TEMPLATE	
RAPPORTEUR	Jun Shimazaki	Date: 31/10/04
TEST	Tear IgE measurement.	
TO DIAGNOSE	Ocular allergy and differentiate it from dry eye.	REFERENCES
VERSION of TEST	[1]	Nomura and, Takamura 1998
DESCRIPTION	To measure IgE level in tears.	
CONDUCT of TEST	<ol style="list-style-type: none"> 1. The subject is seated. 2. Tear sample is collected with a microcapillary tube gently applied to the lower temporal tear meniscus. Care is taken not to touch the lid or conjunctiva. 3. The concentration of IgE in the tear sample is measured by immunoenzyme assay. 	
Web Video	Not available	
Materials:	Microcapillary tubes Microscope Plastic plates Staining solutions	
Variations of technique	Tears can be collected using a micropipette Topical anesthesia may be used Saline may be applied prior to the tear collection	
Standardization	Time of day [] Temperature [] Humidity [] Air speed [] Illumination [] Other:[]	
Diagnostic value	[NA]	Please cite reference to stats used
Repeatability	Intra-observer agreement. [NA] Inter-observer agreement. [NA]	
Sensitivity	[NA]	
Specificity	[NA]	
Other Stats	IgE level can be measured by the Tandem-R immuno-radiometric assay. Other components in tears, such as ECP, IL-4, osteopontin	Insler et al. 1987; Montan et al. 1996; Fujishima et al. 1995;

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	and substance P, might have of diagnostic values.	Uchio et al. 2002; Fujishima et al. 1997;
Glossary	ECP = eosinophil cationic protein	

References

Fujishima H, Takeuchi T, et al. (1995). Measurement of IL-4 in tears of patients with seasonal allergic conjunctivitis and vernal keratoconjunctivitis. *Clin Exp Immunol* 102(2): 395-8.

Fujishima H, Takeyama M, Takeuchi T, et al. (1997). Elevated levels of substance P in tears of patients with allergic conjunctivitis and vernal keratoconjunctivitis. *Clin Exp Allergy* 27(4): 372-8.

Insler MS, Lim JM, et al. (1987). Tear and serum IgE concentrations by Tandem-R IgE immunoradiometric assay in allergic patients. *Ophthalmology* 94(8): 945-8.

Montan PG, van Hage-Hamsten M. (1996). Eosinophil cationic protein in tears in allergic conjunctivitis. *Br J Ophthalmol* 80(6): 556-60.

Nomura K, Takamura E. (1998). Tear IgE concentrations in allergic conjunctivitis. *Eye* 12 (Pt 2): 296-8.

Uchio E, Nmatsuura N, et al. (2002). Tear osteopontin levels in patients with allergic conjunctival diseases. *Graefes Arch Clin Exp Ophthalmol* 240(11): 924-8.