

Thiosulfate Transsulfurase In Mollusks

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The enzyme is distributed in all organs of the mollusk body, but most abundantly in the digestive gland, gill and kidney. Its occurrence varies tremendously from species to species; the indications are that the food supply is of importance. The average enzyme activity is given below for some rich mollusk sources. These activities are comparable with those of mammalian liver. The high activity for *Asterias*, a prominent exception from the generally low activities of echinoderms, is especially interesting in view of its bivalve diet.

Animal	Organ	$\mu\text{mole SCN}^-/\text{hour}$	
		per g wet weight	per mg dry weight
GASTROPODA			
<i>Acmaea testudinalis</i>	dig. gl., kidney	300	1.5
<i>Buccinum undatum</i>	gill, kidney #	1100	7.0
<i>Littorina litorea</i>	dig.gl.	1000	3.3
PELECYPODA			
<i>Mytilus edulis</i>	dig.gl.	170	0.9
<i>Pecten magellanicus</i>	dig.gl.	1000	3.3
<i>Anodonta cataracta</i>	dig.gl.	250	2.0
<i>Elliptio complanatus</i>	dig.gl.	250	1.7
CEPHALOPODA			
<i>Ommastrephes illecebrosa</i>	dig.gl., kidney	400	1.4
ECHIODERMATA			
<i>Asterias vulgaris</i>	dig.gl.	550	1.8

The digestive gland has very low activity

An exceptionally large local variety of *Littorina litorea* was found abundantly at mid-tide level on Googin's Ledge, and is utilized for further transsulfurase studies. The individuals average 37 x 26mm, weighing 12 g (digestive gland 0.37 g), which is more than 3 times the average size found elsewhere.

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