

Table S4. The analysis of the similarity and identity of four antioxidant genes with other species.

Gene name	Species	Accession number	Similarity (%)	Identity (%)
NbSOD	<i>Galendromus occidentalis</i>	XP_003742534.1	99%	93.95%
	<i>Varroa destructor</i>	XP_022653269.1	99%	81.78%
	<i>Tropilaelaps mercedesae</i>	OQR70423.1	99%	79.53%
	<i>Armadillidium vulgare</i>	RXG70665.1	91%	76.14%
	<i>Penaeus chinensis</i>	XP_047497250.1	91%	76.14%
	<i>Cryptotermes secundus</i>		91%	75.76%
NbPOD	<i>Galendromus occidentalis</i>	XP_003748229.1	96%	96.30%
	<i>Varroa destructor</i>	XP_022659000.1	95%	
	<i>Tropilaelaps mercedesae</i>	OQR78265.1	96%	87.96%
		ABR23497.1	82%	84.41%
		XP_029849042.1	96%	83.33%
NbCAT		BAB17604.1	96%	81.57%
	<i>Galendromus occidentalis</i>	XP_018495283.1	99%	93.60%
	<i>Tropilaelaps mercedesae</i>	OQR77713.1	99%	86.06%
	<i>Varroa destructor</i>	XP_022661621.1	99%	84.20%
	<i>Eriocheir sinensis</i>	XP_050722477.1	93%	74.42%
	<i>Nephila pilipes</i>	GFS37677.1	98%	73.99%
NbGPX	<i>Trichonephila clavata</i>	GFQ71175.1	97%	73.78%
	<i>Crassostrea gigas</i>	XP_034312380.1	93%	68.79%
	<i>Crassostrea angulata</i>	XP_052686427.1	93%	68.79%
	<i>Ostrea edulis</i>	XP_048758528.1	95%	68.55%
	<i>Burkholderiales bacterium</i>	MCC2626238.1	95%	68.35%
	<i>Crassostrea virginica</i>	XP_022316619.1	95%	67.30%
	<i>Panacagrimonas perspica</i>	WP_133883707.1	94%	66.88%