

**Table 1. Antioxidant-Related Properties/Effects of ME-3.**

Property/effect	Experimental (ES), animal (AS), human (HS) study
Expression of MnSOD, prolonged survival time at presence of high H <sub>2</sub> O <sub>2</sub> , scavenging of superoxide and hydroxyl radicals	ES <sup>17</sup>
Characterized by high TAA and TAS values	ES <sup>17,18</sup>
Containing of GSH and related antioxidative enzymes	ES <sup>18,19</sup>
Working as natural antioxidant in soft cheese spreads with different fats	ES <sup>20</sup>
Maintaining its high TAA during production of probiotic cheese	ES <sup>21</sup>
Removal effect of metals (prooxidants) from environment	ES <sup>22</sup>
Elevation of blood TAS or TAA, and TAA in the gut mucosa	HS, AS <sup>18,23,24,25,26</sup>
Elevation of oxiresistance of LDL	HS <sup>18,23,26</sup>
Lowering level of oxLDL	HS <sup>23,24,26</sup>
Lowering level of isoprostanes	HS <sup>23,26,27</sup>
Lowering the glutathione redox ratio in blood, in the gut mucosa, in skin	HS, AS <sup>18,23,24,25,28</sup>
Lowering lipid peroxidation in the gut mucosa	AS <sup>25,28</sup>
Lowering level of BCD-LDL	HS <sup>23,26,29</sup>
Positive effects on postprandial status of OxS, blood lipoprotein's status, and urine isoprostanes	HS <sup>26,27</sup>

Legend: BCD-LDL, baseline diene conjugates in low density lipoprotein; GSH, reduced glutathione; H<sub>2</sub>O<sub>2</sub>, hydrogen peroxide; LDL, low density lipoprotein; Mn-SOD, manganese superoxide dismutase; oxLLD, oxidized low density lipoprotein; OxS, oxidative stress; TAA, total antioxidative activity; TAS, total antioxidative status.

Used with permission from Professor Marika Mikelsaar. Chart originally appeared in: *Lactobacillus fermentum* ME-3 – an antimicrobial and antioxidative probiotic. *Microb Ecol Health Dis.* 2009 Apr;21(1):1-27.