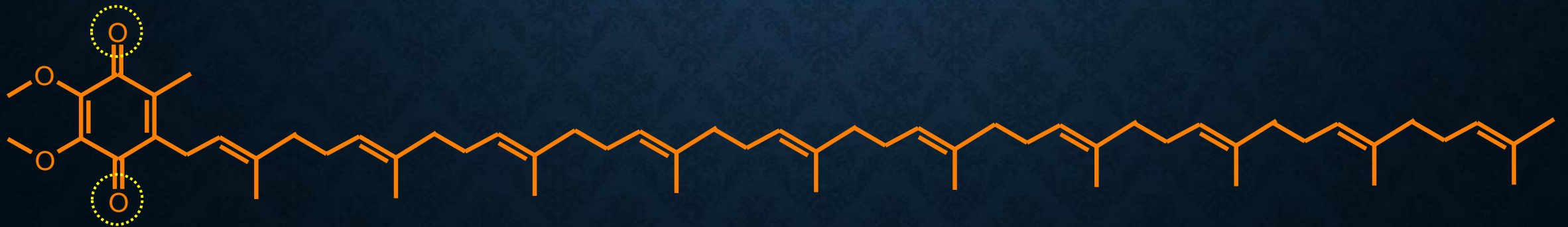


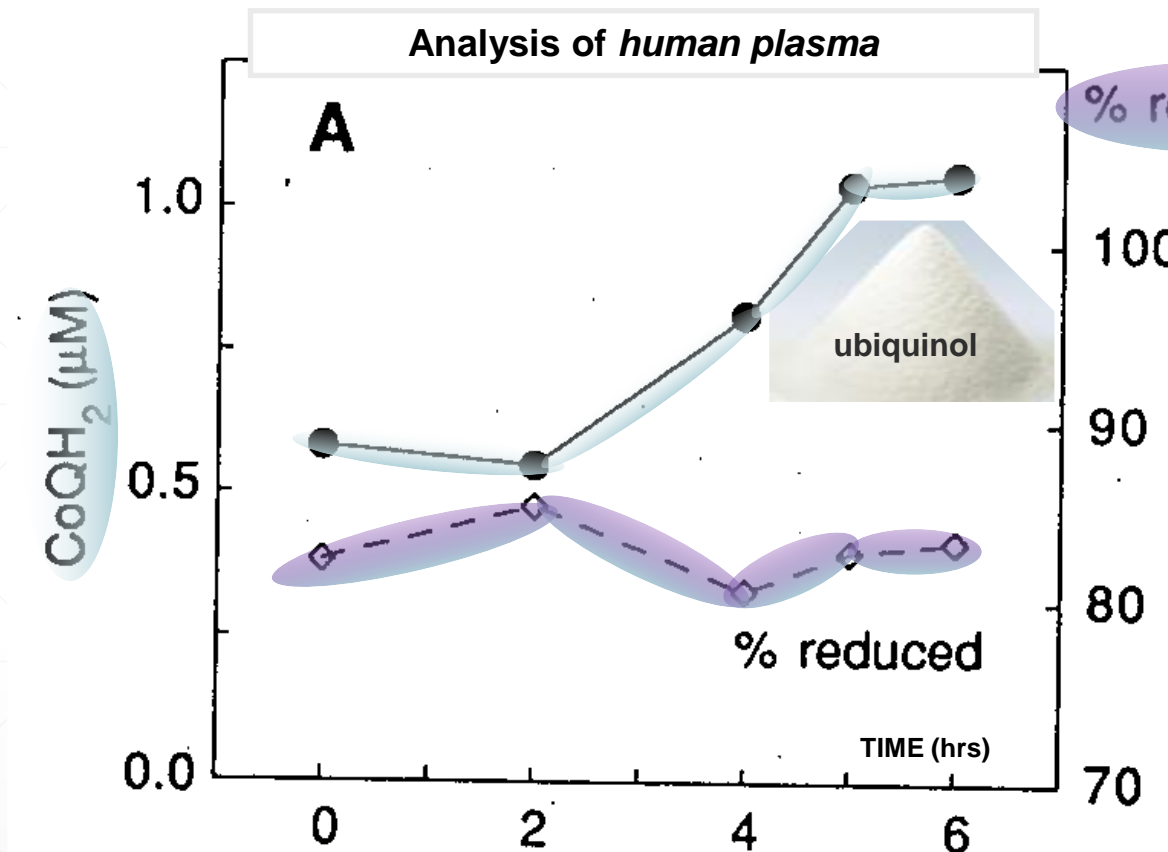
2020

Q10 is converted to ubiquinol rapidly

★ Q IS GOOD (IF ABSORBED)★



Q10 is converted to ubiquinol rapidly (Mohr 1992)



% reduced

100

90

80

70

ubiquinol

% reduced

TIME (hrs)

Procedure:

Single oral dose of 100 mg Q10 as powder suspended in milk



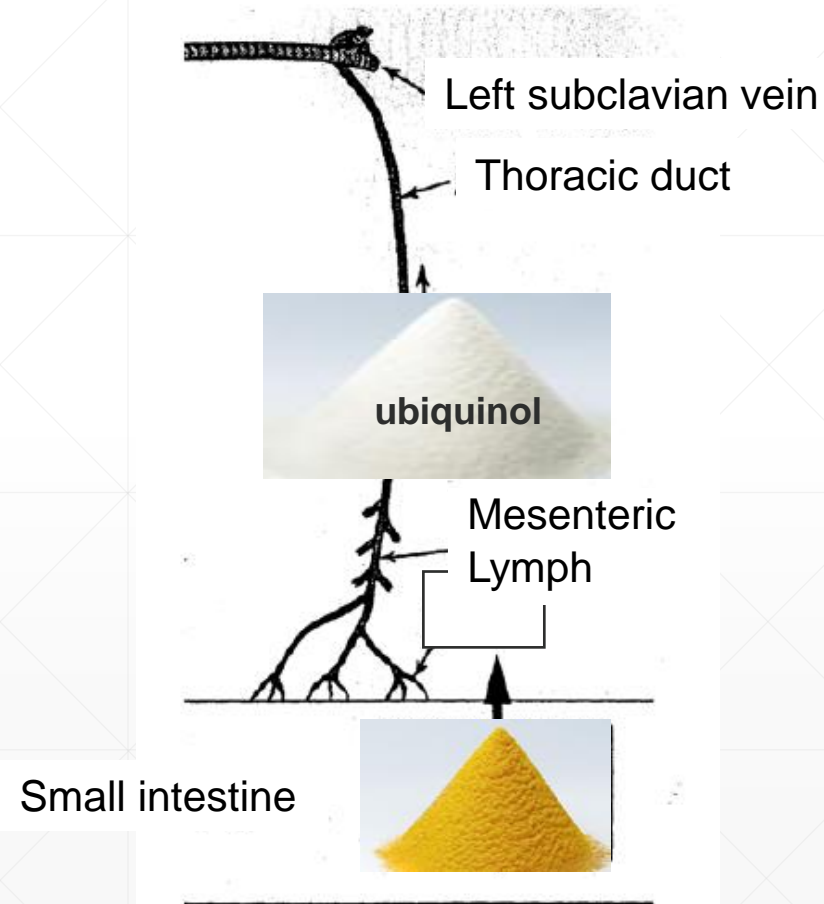
Conclusion: **Oral supplementation of Q10 increases ubiquinol in plasma. Efficient reduction of Q10 to ubiquinol occurs rapidly after supplementation.**

(Mohr1992)

Q10 is converted to ubiquinol rapidly (*Mohr 1999*)

- study on rats
- significant and reproducible increase in ubiquinol 10 or ubiquinol 9 in mesenteric lymph
- within 2 hours after oral administration of corresponding **Q10**

→ ***Intestines provide a reducing environment able to reduce Q10 to ubiquinol***



Most of Q10 (ubiquinone) is converted to ubiquinol rapidly in intestinal cells

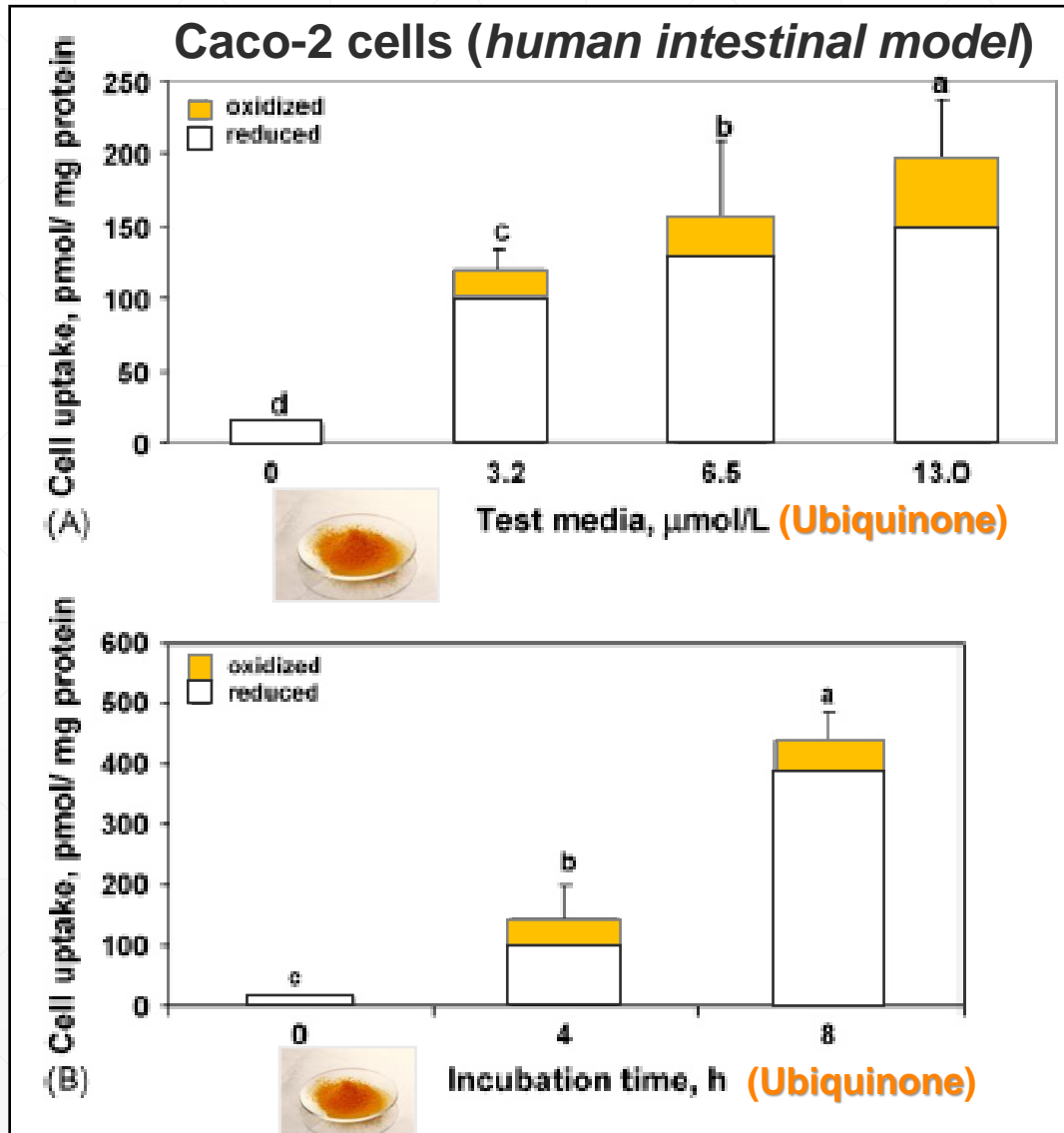
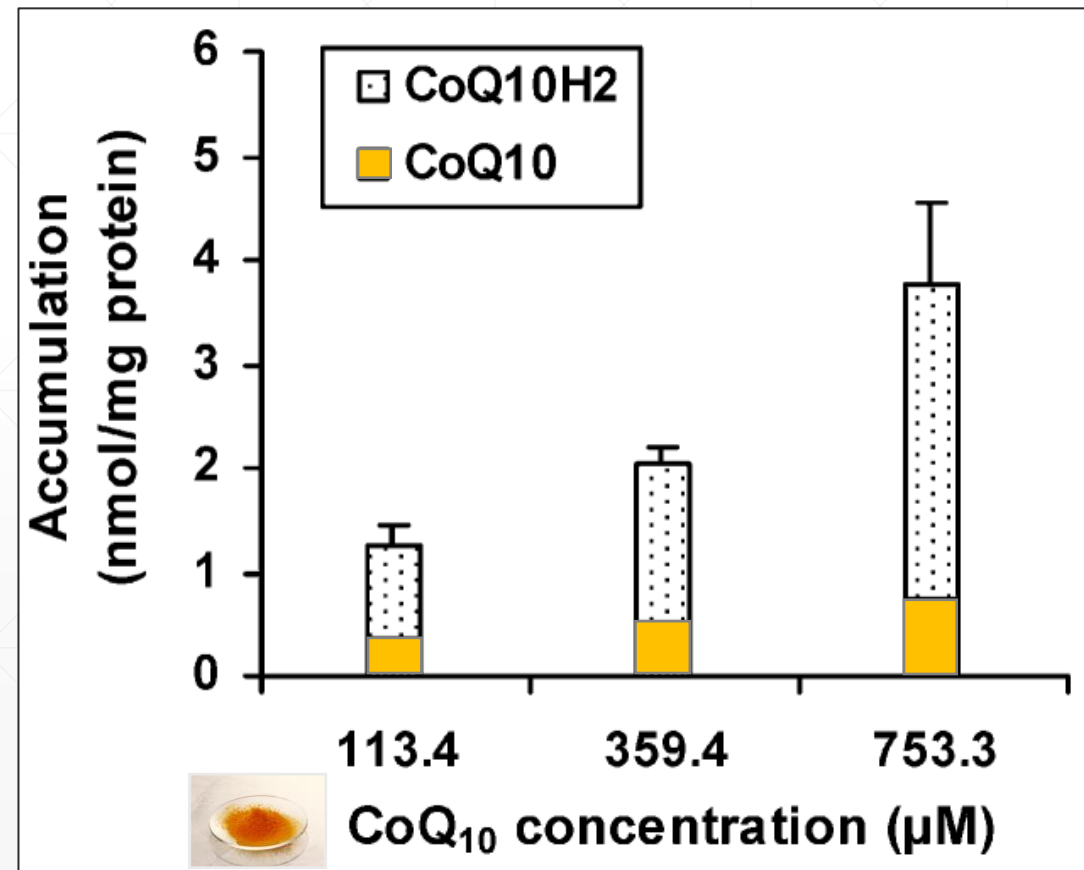


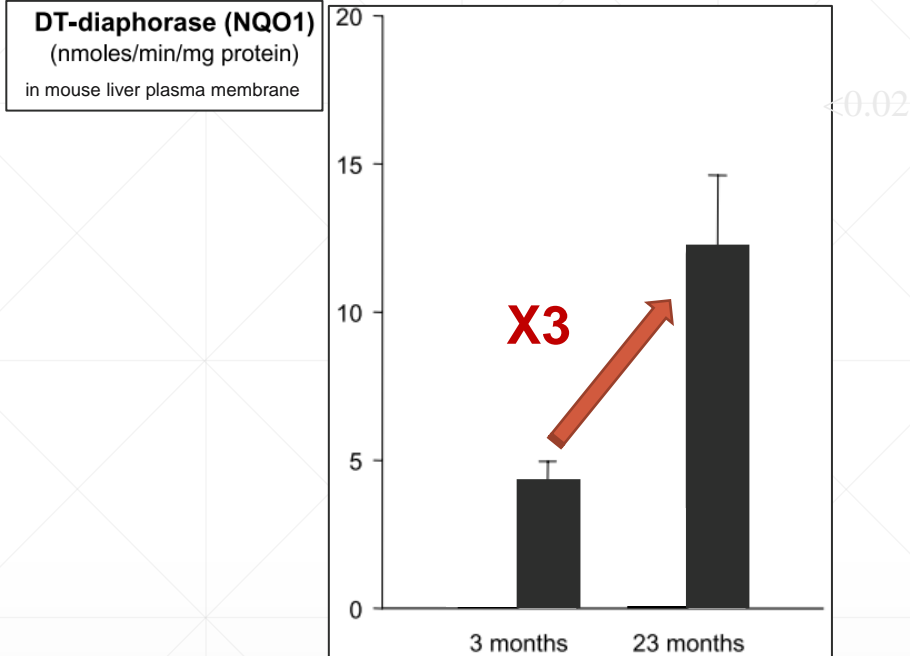
Fig. 3. Uptake of CoQ10 from synthetic micelles by Caco-2 cells.

Concentration dependence of transport rate of watersoluble CoQ10 180 min in the absorptive (AP-BL) direction in Caco-2 cells



XIA 1019, *J. Agric. Food Chem.* 2009, 57, 7989–7996

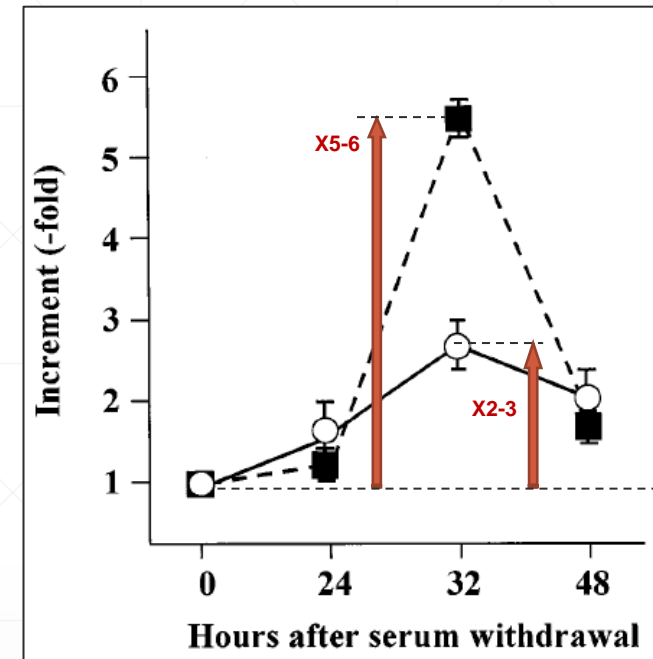
NQO1 activity increases with AGE



In aged animals DT-diaphorase activity from calorie restricted-fed mice significantly increases nearly 3-fold

(Lopez-Lluch 2005)

NQO1 activity increases with OX STRESS



■ dicumarol-sensitive (NQO1)
○ dicumarol-resistant (NQO1)

(Forthoffer 2002)

NQO1 (= DT-diaphorase) is one of the major reductase-enzymes for Q10 to ubiquinol conversion