



www.m-taito.com

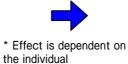
### M-taito water manufacturing factory

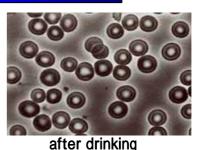
During the process of M-taito water manufacturing, we have installed equipment which uses ion-exchange resins, focusing on reverse osmosis (RO) and are manufacturing this water close to ultra-pure water without impurities and also activating the water as much as possible by special treatment with M-taito ceramics. M-taito water, processed and manufactured with this treatment, has excellent permeability, water-retention capacity, dissolution properties, and activates every ecosystem. The equipment is made with a titanium alloy and is well planned to offer high quality water efficiently.











The above picture shows human red blood corpuscles which overlap each other before drinking, but have separated and re-distributed after drinking M-taito water. This shows M-taito water s ability to activate the oxygen supply.

With this effect we can pursue the possibility that each red blood corpuscle can supply oxygen more efficiently and functionally.



Oxygen



## A health revolution beginning with water! Drink plenty of M-taito water which is essential for your body s health!

Pure, clean water which is safe and delicious.

With this healthy water in our lives we seem to be reborn from within our cells! If the whole family stays healthy with this water, essential to life, happiness overflows. Start using this wonderful water today.

### The wonderful secret of M-taito water is **M-taito ceramics**



特許庁特許証 Patent certificate



エムタイト・セラミックス 特許 第341212号 M-taito ceramics (Pat. No. 341212)

M-taito ceramics were patented in 2003 and have been introduced to many companies and are highly regarded. The ceramics are natural ore ceramics in which several kinds of natural ore are arranged and radiate special far infrared rays and are sintered at 1300° C. Far infrared radiation by M-taito ceramics give the Omega Effect to the water molecule. As a result the water is activated with a spinning motion and acquires high permeability and dissolution properties.

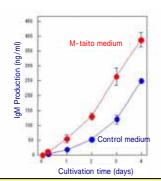


#### Following are the results of joint research conducted with Ehime University

Data Vol. 1 of joint research conducted with Ehime University

#### **Examination of the Effect on Immunity**

Effect of IgM production of HB4C5 cells on the medium produced by M-taito water



Medium produced by M-taito water promoted IgM production of HB4C5 cells.

#### Method

M-taito water was manufactured from ultra-pure water through boiling and utilizing a special mineral provided by MSA Company which generates far infrared rays.

ERDF culture medium (manufactured by Kyokuto Pharmaceutical Industrial Co., Ltd.), which is the fundamental medium for animal cells, was prepared by using M-taito water, and the effect on antibody production was examined in a non-blood serum culture medium of human-type hybridoma HB4C5.

#### Result

Human-type hybridoma HB4C5 IgM production was cultivated both on the culture medium produced by M-taito water and on the control medium produced by ordinary ultra-pure water, and the changes in the amount of antibody production (IgM) were measured over time. As a result, the increase in antibody production on the medium produced by M-taito water was found to be significant. (Fig.)

\* Experimental result of cell level (medium cell)

# Reliability of M-taito water has been shown by numerous experiments.

Examination of the Effect of Maintenance of the freshness of green pepper and other vegetables

<Time: March 28 ~ April 9 (kept at room temperature for 12 days)>



M-taito water



Tap water

Green peppers were divided into two groups. Three peppers were soaked for 30 minutes in M-taito water and three in tap water, then drained and wrapped. The water temperature was  $16^{\circ\circ}$  C for both M-taito water and the tap water.

The green peppers soaked with M-taito water remained in almost pre-experimental condition, while the peppers soaked in tap water released their liquid, became quite dry and blackened with rot.

<After 50 days stored under refrigeration>



Tap water

M-taito water

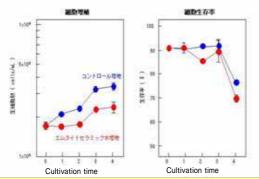
Lettuce was soaked in beakers of tap water and M-taito respectively, then put into plastic bags separately and kept for 50 days under refrigeration. Lettuce which was soaked in tap

water (left) was rotten and shrunken, while that soaked in M-taito water (right) showed almost no difference from the pre-experimental condition.

#### DataVol.2 of the joint research conducted with Ehime UniversityUniversity

#### Examination of anti-cancer effect

Effects on human liver cancer cells (Hep G2 cells) in the culture medium produced by M-taito water



The growth of human liver cancer cells in the medium made by M-taito vater was suppressed. It seems this effect was not due to cell injury out to the control of cell division as changes in cell viability over those

In a culture medium produced by M-taito water, human liver cancer cells (Hep G2 cells) were cultivated, and the effects of the influence on cell growth were examined. Cell viability was evaluated using Trypan Blue.

#### Result

When liver cancer cells (HepG2 cells) were cultivated in both cultures of medium produced by M-taito water and medium produced by ordinary ultra-pure water (control medium), the controlling effect on cell growth by M-taito water was found to be significant. (left figure) When cell viability was examined; M-taito water did not affect cell viability. (right figure)

\* Experimental result of cell level (medium cell)



#### Examination for retaining freshness, moisture and permeability of strawberries in M-taito water

#### **Examination of freshness retention**



M-taito water

<M-taito water> condition unchanged after 10 days

<Tap water> mold was generated after 10 days

#### **Examination for moisture retention**



<left for approximately one month> Strawberries in M-taito water remain unchanged even in size. Strawberries in tap water shrink, release their liquid and become rough and dry.

#### **Examination for**



#### <after one day>

The red color of the strawberries was not dissolved in tap water.

The red color was dissolved in M-taito water.





#### <after two days>

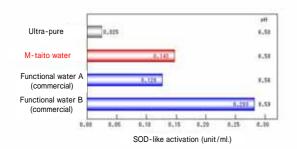
There was still no dissolution in tap water.

Dissolution continued to increase in M-taito water.

#### DataVol. 3 of the joint research conducted with Ehime University

#### Examination of the Effect of Anti-oxidation

The effect of eliminating super oxide (SOD-like activation) in M-taito water



SOD-like activation which eliminates super oxide was seen in M-taito water

The effect of anti-oxidation in M-taito water was examined with the index of Super Oxide Dismutase (SOD) activation. SOD activation measurement kits (Dojindo Laboratories) were used.

As a result of measuring SOD activation in different waters, SOD-like activation was recognized in M-taito water. Compared with two kinds of functional water (A, B) which are on the market and said the have SOD-like activation, M-taito water has equal activation with the functional water A.

\* Experimental result of cell level (medium cell)

# M-TAITO

#### Examination of freshness retention of oranges in M-taito water

Oranges were soaked in M-taito water or in tap water for 10 minutes and then wrapped and stored at room temperature.



Tap water

M-taito water

no treatment <after 2 months>

At this point a fresh, untreated orange was added. (left) The orange treated with M-taito water (center) showed little difference with pre-experimental conditions, while that treated with tap water (right) began to release liquid and to rot.



#### no treatment <after 4 months>

The untreated orange (left) had lost moisture and drying was advanced. The orange treated with M-taito water

(center) began to release liquid. The orange treated with tap water (right) is in the advanced stages of rot.

Tap water



no treatment <after 6 months>

Tap water

The untreated orange (left) is apparently dried and smaller compared to preexperimental conditions.

The orange with M-taito water (center) has deteriorated but is still in edible condition.

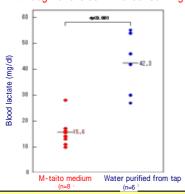
The orange treated with tap water (right) is in advanced stages of rot and has lost its shape.

In the above experiment the orange treated with M-taito water retained freshness for about 6 months at room temperature. It can thus be seen that M-taito water is excellent for retaining freshness and has a moisturizing effect.

#### DataVol.4 of the joint research conducted with Ehime University

#### **Examination of Blood lactate levels**

Suppressing effect on the increase of blood lactate level through exercise while consuming M-taito water



Measured after aerobic exercise while consuming M-taito water compared with that while consuming purified tap water, the increase in blood lactate was significantly suppressed.

#### Method

Aerobic exercise on a stationary exercise cycle was preformed while drinking M-taito water or control water (purified water) and blood lactate levels were measured after the exercise.

#### Result

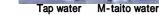
The average distance with purified water intake was 23.9 km, while the average with M-taito water was 23.4 km. Blood lactate levels just after exercise are shown in the left figure. The average blood lactate level was 42.3 mg/dl (measure point 6) just after exercise while consuming purified water, while the average blood lactate was 15.5 mg/dl (measure point 8) just after exercising while consuming M-taito water. The results show that M-taito water significantly suppresses a rise in blood lactate levels.

\* Data is dependent on the individual

# WATER

#### The effect of M-taito water on flower freshness





<Aug 30, 1999 (after one month)> Flowers kept in tap water (left) have most all died and the water is dull and cloudy.

Both blossoms and leaves of the flowers kept in Mtaito water (right) are fine and the water is neither cloudy nor dull.





Tap water M-taito water

<Nov 11, 1999 (after four months)>

Flowers in M-taito water (right) have generated new sprouts at the root.

Flowers in tap water (left) are almost completely dead.



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